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WEATHER BUREAU

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 1, 1875.

QC
982
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1875
(Mar.-Ap.)

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:[illegible] P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

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U.S. Dept. of Commerce

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.75	755.6															Charnot.
Algiers			29.53	750.0	53.6	12.0	61	NW			1		10			1.291	32.8	Rain	Peter.
La Calle			29.44	747.7															Kuntz.
Tunis			29.28	743.6	57.0	13.9	71	WNW			5		10			0.370	9.4	Rainy	Jacques.
Sfax			29.33	745.0												0.276	7.0	Rainy	Chauvey.
Saïda			29.70	754.3	57.4	14.1		WSW			5		8						Grosjean.
Tebessa			29.52	749.7															Colin.
Geriville			29.69	754.0	53.8	12.1		NW			4		1			0	0		Bernadach.
Laghouat			29.61	752.1	53.0	11.6	30	NW			5		3			0	0		Poinsignon.
Biskra			29.57	751.0	60.3	15.7	30	NW			5		2			0.276	7.0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.81	757.2	34.2	1.2	76	NE			3		8			0.028	0.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Con. M. I., Hungary
Cracow			29.94	760.4	25.2	— 3.8	68	NE			2		8			0	0		I. R. Observatory.
Eperies			29.91	759.6	31.5	— 0.3	75	Calm			0		10			0	0		Julius Mikolik.
Gratz			29.80	757.0	30.2	— 1.0	86	S			2.5		10			0.106	2.7		Andreas Rospini.
Hermannstadt			29.87	758.8	38.7	3.7	67	SE			3		7			0	0		Prof. Reissenberger.
Kremsmünster			29.69	754.2	29.8	— 1.2	84	NE			3		10			0	0		Prof. C. Wagner.
Lemberg			30.01	762.2	25.9	— 3.4	92	E			4		1			0	0		Dr. T. Stanecki.
Nyiregyhaza																			Habzsuda Daniel.
Pola			29.62	752.3	43.7	6.5	72	E			3		10			0.002	0.05		I. R. Hydrographic Office
Szegedin			29.86	758.4	36.0	0.2	85	SE			2		2			0	0		Karl Stancel.
Trieste			29.68	753.8	40.1	4.5	56	ENE			1		10						Prof. V. Farolfi.
Vienna			29.82	757.3	27.7	— 2.4	86	SSE			2		10			0.051	1.3		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.49	749.1			32.4	0.2	86	ENE			1		10		NNE	0.002	0.05	Snowy	Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

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BRITISH SERIES.

Furnished by the coöperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental error. Inches.	Barometer. Corrected for instrumental error. Millimeters.	Barometer. Reduced to 32° Fahr. Inches.	Barometer. Reduced to 32° Fahr. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.13	765.3	35.4	1.9		NE	30	13.4			9			0	0		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			30.05	763.3	37	2.8		NE			3		9					Snow	William McNeil.
Armagh Observatory			30.04	763.0	35.9	2.2		NNE	11				10						Stillman Cail
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.90	759.4	35.1	1.7		NE			3		10						The Liverpool Obs.
Birr Castle			30.00	762.0	35.3	1.8		N			1–2		10					Snow	J. Dreyer.
Bradford			29.85	758.2	33.8	1.0		NE			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.79	756.7	33.5	0.8		NE			1		10					Sleet	H. Todd.
Cape Town, Cape Colony			29.90	759.4	78.8	26.0		NW			4		2						Sgt. D. E. Hunt
Cape Good Hope Obs	29.93	760.2			67.4	19.7	48	S	20	8.7			1						The Royal Observatory.
Cardington			29.82	757.4	32.0	0.0		NE					10						John McLaren.
Carlisle			29.98	761.5	35.7	2.1		E					10			0	0	Threatening	T. Bell.
Chatham			29.74	755.4	31.8	— 0.1		NE			3		10					Light snow	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.88	758.9	78.4	25.8		NE			2		6						Sgt. W. F. Hopkins
Dartmoor			29.88	758.9	27.2	— 2.7		NE			1		10						R. F. Power.
Donaghadee			30.00	762.0	38	3.3		ENE			6		7						J. Mac Gowan, Jr.
Dover			29.71	754.6	35	1.7		NNE			4		7					Hail	J. Costello.
Dublin																			
Durham Observatory			29.94	760.5	34.2	1.2		ENE					10					Snowy	G. Goldney.
Eccles, (near Manchester)			29.89	759.2	34.8	1.6		ENE	4.4	2.0			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.81	757.2	34.1	1.2		NNE	19	8.5			10						The Falmouth Obs.
Fort Napier, (Natal)			29.91	759.7	78.4	25.8		SE			3		6						Pvt. G. Salmon.
Galway			29.96	761.0	40	4.4		NE			5		10						Queen's College.
Gibraltar, (Mediterranean)			29.82	757.4	56.2	13.4		NNW			5		5						Sgt. J. Brewster.
Glasgow Observatory			30.04	763.0	34.5	1.4		ENE			3		10						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.80	756.9	33	0.6		ENE			4		10						G. T. Watson.
Greenwich Royal Obs			29.76	755.9	22.0	— 5.6		NE			2		10						The Royal Observatory.
Guernsey			29.72	754.9	36.5	2.5		NNE			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.87	758.7	32.7	0.4		ENE					10						Moorside Observatory
Halifax, (Nova Scotia)			30.25	768.3	7.4	—13.7		N			2		1						Corp'l J. Y. Thompson.
Helston			29.78	756.4	38	3.3		NE			4		8					Sleet	W. B. Moyle.
Holyhead			29.91	759.7	37	2.8		NE			3		10					Snow	John Tilston.
Hull Park																			
Kew Observatory			29.78	756.4	33.1	0.6		NNE	19	8.5			10					Snow	The Met. Office.
Kingstown			29.97	761.2	37	2.8		ENE			3		10					Hail	George Mitchell.
Lampeter																			
Leicester			29.83	757.7	32.1	0.1		NE			2		10					Snow	William J. Harrison
Llandudno			29.91	759.7	35.6	2.0		E					10						Dr. James Nicol.
Malta, (Mediterranean)			30.50	749.3	58.0	14.4		SW			2		10						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.16	766.1	36	2.2		Calm			0		10					Hazy	William D. Penny.
Nassau, (Bahamas)			30.22	767.6	74.2	23.4		NE			5		8						Surgeon I. Jameson
North Shields			29.98	761.5	37	2.8		ENE			5		8						John Wm. Irvine.
Nottingham			29.86	758.4	32.7	0.4		NNE			3		10		NE			Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.85	758.2	31.0	— 0.6		NNE			2		10					Snow	St. Mary's College.
Oxford, Radcliffe Obs			30.70	754.4	33	0.6		N			1		10						Radcliffe Observatory.
Plymouth			29.79	756.7	33.5	0.8		NE			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.91	759.7	36	2.2		NNE			4		10						W. Kennedy.
Saint Ann's Head			29.85	758.2	36	2.2		NE			3		10					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.25	768.3	37	2.8		E	13	5.8			0						Rev. Dr. Clouston
Scarboro'			29.92	760.0	34.8	1.6		ENE			4		10					Rainy	F. Heard.
Scutari, (Turkey)			29.78	756.4	51.6	10.9		NE			2		8						W. H. Lyne.
Sheffield			29.88	758.9	34.4	1.3		NE			2		10					Snow	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.96	761.0	37.4	3.0		NE			4		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.78	756.4	34.2	1.2		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.89	759.2	34.4	1.3		NE			2		10					Sleet	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.20	767.1	37	2.8					3		10						John Smith.
Strathfield Turgiss			29.79	756.7	33.2	0.7		NE			1		10						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.17	766.3	40	4.4		NE			3		8						William Lawrence.
Taunton College																			
Thurso			30.21	767.3	40	4.4		NE			2		5						John Trotter.
Truro, Royal Institution			29.75	757.6	36	2.2		N			4		10						Royal Institution.
Valencia			29.98	761.5	36.2	2.3		ENE	16	7.2			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.75	756.6	33.2	0.7		NNE			2		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the coöperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Station.	Barometer. Corrected for instrumental error. Inches.	Barometer. Corrected for instrumental error. Millimeters.	Barometer. Reduced to 32° Fahr. Inches.	Barometer. Reduced to 32° Fahr. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			30.05	763.2	28.0	— 2.2	67	ESE			2		0						
Fanöe			30.00	762.0	29.7	— 1.3	65	E			6		1						
Godthaab, (Greenland)			29.16	740.6	24.6	— 4.1		E			7		10						
Stykkisholm, (Iceland)			30.10	764.5	37.6	3.1	98	S			4		10					Rain & Fog	
Thorshavn, (Faröe)			30.30	769.7	40.8	4.9	56	Calm			0		1						
Vestervig			30.05	763.3	30.2	— 1.0	76	ENE			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Ajaccio			29.34	745.1	53.2	11.8	94						5						Normal School.
Alençon			29.68	753.9	37.4	3.0	86	NE			1		10			0.039	1.0		Normal School.
Amiens			29.66	753.3	35.2	1.8	75	ENE			2		10			0.063	1.6		Normal School.
Beaumette, (near Angers)			29.64	752.8	40.5	4.7	77	NE	8.3	3.7			10		N	0	0		Beaumette Observatory.
Beauvais			29.69	754.2	35.4	1.9	71	ENE			2		10			0	0		Normal School.
Besançon			29.63	752.5	41.7	5.4	75	NE			2		8		NE	0	0		Normal School.
Bourges			29.73	755.0	42.8	6.0		NW			2		10		NW	0	0		Normal School.
Brest			29.68	753.0	37.6	3.1	83	NNE			2		10		NNE	0	0	Fog	Naval Observatory.
Caen			29.70	754.3	41.0	5.0	80	NNE			2		8			0.031	0.8		Normal School.
Carcassonne																			
Chartres			29.73	752.6	34.5	1.4		N			1		10			0	0		Normal School.
Chaumont			29.37?	760.2?	35.4	1.9		E			1		10			0	0	Snow	Normal School.
Le Mans			29.67	753.7	38.7	3.7	80	N			2		10			0	0		Normal School.
Mirecourt			29.59	751.5	36.1	2.3		NNE			4		10		SSW	0	0		Normal School.
Orleans			29.67	753.7	36.7	2.6	86	NW			2		10		NW	0	0		Normal School.
Paris			29.64	752.8	37.2	2.9		NNE			2		10			0.010	0.26	Fog	National Observatory.
Parthenay			29.64	752.8	48.2	9.0	88	NE			2		5		NE	0.039	1.0		
La Roche sur Yon			29.67	753.6	42.1	5.6	88	NE			2		5		WSW	0.012	0.3		Normal School.
Rouen			29.67	753.5	37.2	2.9	72	N			2		10			0	0		Normal School.
Saint Lo			29.69	75 .0	35.6	2.0	96	NW			2		10		NW	0	0		Normal School.
Villefranche			29.60	751.7	45.7	7.6	97	ESE			1		8		NW	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Gorée, (Senegambia)			29.84	757.8	74.8	23.8	62	NNW			3		0			0	0		Père Pascall.
Mont-Louis	24.34	618.2			32.7	0.4	69	NNW	9.4	4.2			8		NNE.	0	0		—. Falguère.
Montsouris (near Paris)			29.64	752.8	36.9	2.7	75	NE	4.0	1.8			10			0	0		Marié Davy.
Perpignan	29.43	647.5			55.2	12.8	43	NE	9.4	4.2			4		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.64	752.8	37.2	2.9	73	NNE			1		10			0.020	0.5		E. Renou.
Saint Pierre, (Martinique)																0	0		
Tours			29.65	753.1	40.6	4.8	85	NW			1		10		W	0	0		C. Marquet.
Versailles, (near Paris)			29.64	752.8	37.4	3.0	76	NE			1		10			0.011	0.28		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Bamberg			29.68	753.8	36.5	2.5	67	E			1		6			0	0		Prof. Hoh.
Berlin			29.94	760.5	24.1	— 4.4	83	SE			2		2			0	0		Prof. Arndt.
Breslau			29.95	760.6	27.0	— 2.8	79	E			5		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.65	753.0	35.8	2.1	62	NE			1		9			0	0		A. Leuz.
Cassel			29.69	754.2	33.8	1.0	86	ENE			2		3			0	0		Dr. H. Mohl.
Cologne			29.75	755.6	35.1	1.7	86	SSE			2		10			0	0		Dr. Gaithe.
Emden			29.96	761.0	3 .0	— 1.1	57	ENE			1		1			0	0	Snow	Prof. Prestel.
Frankfort on the Main			29.79	756.0	33.3	0.7	81	SE			1		10			0.008	0.20		Physical Society.
Friedrichshafen			29.65	753.0	35.0	1.5	82	W					3			0	0		M. Wilhelm.
Hamburg			29.91	760.4	26.6	— 3.0	66	E			5		10			0	0		W. Reinart.
Kiel			30.00	761.9	27.0	— 2.3	84	E			3		8			0	0		Prof. G. Karsten.
Königsberg			30.13	765.2	23.9	— 4.5	63	E			4		6			0	0		Prof. E. Luther.
Köslin			30.26	768.6	36.5	2.5		E			2		10			0	0		Dr. T gert.
Leipsic			29.84	757.8	28.0	— 2.2	81	E			2		8			0	0		Prof. Bruhns.
Münster			29.76	755.9	30.9	— 0.6	91	NE			3		3			0	0		Prof. E. Reis.
Posen			30.01	762.3	22.6	— 5.2	88	E			8		1			0.004	0.1		Dr. Magener.
Strassburg, (in Alsace)			29.64	752.0	36.0	2.2	66	N					8			0	0		Hartwig and Fulk.
Stuttgart			29.64	752.8	36.6	2.5	66	SE					6			0	0		Mr. Wurth.
Thorn			30.02	762.6	23.0	— 5.0	59	SE			4		1			0	0		Dr. H senbalg.
Treves, (Trier)			29.60	751.8	32.4	0.2	98	NE			4		10			0	0		Prof. Flesch.
Wustrow			30.00	762.0	26.6	— 3.0	87	ENE			4		10			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'r 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Moncalieri								NW			2		10			0.063	1.6		
Mondovi			29.74	753.3	30.0	— 1.1	96	NW			2		10			0	0		
Genoa			29.59	751.5	40.0	4.4	60	N	11.2	5.0			10	W		Blank	Blank		
Pavia			29.70	754.4	35.6	2.0	84	NE			2		10			Blank	Blank	Snow	
Verona			29.65	753.0	40.8	4.9	83	E			4		10			0	0		
Padua			29.68	753.8	34.7	1.5	93	NE	13.7	6.1			10			0	0	Snow	
Parma																			
Bologna			29.76	756.0	36.1	2.3	38	WNW			4		10			Blank	Blank	Snow	
Livorno			29.54	750.4	44.2	6.8	60	NE	12.3	5.6			10			0	0		
Urbino			29.64	752.9	35.1	1.7		W			2		10			0.472	12.0		
Ancona			29.59	751.6	39.6	4.2	90	WNW			2		10			0.118	3.0		
Siena			29.54	750.4	39.6	4.2	96	ENE	4.3	1.9			10	E		0.217	5.5		
Rome			29.53	750.0	47.5	8.6	89	E	4.3	1.9			10	SE		0.236	6.1		
Naples, O.U.			29.56	750.7	56.7	13.7	49	S			2		10	SW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.70	754.4	53.8	12.1	63	SW	25.5	11.4			10			0	0		
Cosenza			29.65	753.0	47.1	8.4	79	SSE			2		10	NW		0	0		
Catania, (Sicily)			29.63	752.6	52.2	11.2	64	NE			2		10	SE		Blank	Blank		
Riposto																			
Palermo			29.29	744.3	56.1	13.4	55	SW			8		10	SW		0.012	0.3		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.75	755.7	33.4	0.8		NE			4								
Groningen			29.77	756.1	28.4	— 2.0		ENE			4								
Helder			29.80	756.9	27.3	— 2.6		NE			4								
Utrecht			29.70	754.4	31.3	— 0.4		NE			3		5						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.15	765.9	30.2	— 1.0	65	NNW	4.3	1.9			0			0	0		
Christiania			30.17	766.5	18.7	— 7.4	72	SSW	1.6	0.7			0			0	0	Haze	
Tromsö			29.85	7581.	29.1	— 1.6	94	SW			2		10			0.146	3.7		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.54	750.3			50.4	10.2	71	NW	15.0	6.7			9			Blank	Blank		

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.03	762.8	23.0	— 5.0	79	E	9	4			0						Astronomical Obs.
Wilna			30.23	767.7	23.0	— 5.0	63	Calm	0	0			0						Astronomical Obs.
Dorpat			30.17	766.1	23.9	— 4.5	83	WSW	9	4			10			Blank	Blank	Snow	Physical Cabinet.
St. Petersburg			30.02	762.6	21.2	— 6.0	93	WSW	7	3			10			Blank	Blank	Snow	Central Physical Obs.
Kieff			30.30	769.5	19.4	— 7.0	68	N	2	1			2						Physical Cabinet.
Nikolaiev			30.21	767.2	24.8	— 4.0	71	NE	7.8	3.5			0						
Kertch			30.02	762.6	28.9	— 1.7	92	NE	1.3	6			10						Lagorio.
Moscow			30.19	766.7	22.6	— 5.2	63	W	10.1	4.5			0						Meteorological Obs.
Lugan			30.15	765.7	19.8	— 6.8	68	NE	10.1	4.5			9						Meteorological Obs.
Archangel			29.87	758.8	21.6	— 5.8	90	SSW	7.8	3.5			10						Ogorodnikof.
Tiflis			29.85	758.1	53.4	11.9	69	SE	7.8	3.5			7						Physical Obs.
Astrakhan			30.23	767.9	31.3	— 0.4	51	NE	10.1	4.5			10						Sebastianof.
Kasan			29.96	760.9	20.7	— 6.3	90	NW	7.8	3.5			10						Physical Cabinet.
Orenburg			30.16	766.1	7.5	—13.6	83	W	10.1	4.5			0						Tschernischef.
Ekaterinburg			29.82	757.5	11.1	—11.6	75	W	7.8	3.5			2						Meteorological Obs.
Kasaly			30.08	763.9	29.8	— 1.2	84	NE	13	6			0						Bobrof.
Tashkend			30.15	765.9	59.0	15.0	58	Calm	0	0			7						Michelson.
Barnaul			30.04	762.9	25.7	— 3.5	67	S	20	9			4						Meteorological Obs.
Yeniseisk			29.67	753.7	22.1	— 5.5	85	S	10.1	4.5			10			Blank	Blank	Snow	Marks.
Irkutsk																			Uscizef.
Oorga			30.84	783.2	— 7.2	—21.8	100	Calm	0	0			0						Mossin.
Peking, (China)			30.56	776.2	32.7	0.4	35	NW	20	9			0						Physical Observatory
Nertchinsk			30.36	771.2	57.0	13.9	62	NW	7.8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.67	753.5	44.8	7.1	69	NW	3.8	1.7			7			0.020	0.5	Light rain	Royal Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.84	757.9	33.4	0.8	85	NW			2		9			0	0		Dr. Hildebrandsson.
Hernosand			29.92	759.9	39.2	4.0	50	WNW			1		0			0	0		
Upsala			30.09	764.4	22.8	— 5.1	72	S			7		0			0	0		
Stockholm			30.08	763.9	23.0	— 5.0	50	W			4		0			0	0		
Wisby			30.15	765.8	29.5	— 1.4	100	W			1		0			0	0		

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.14	714.6			40.1	4.5	70	NNE			2		2			0	0		The Observatory.
Zurich	27.95	709.9			37.9	3.3	92	W			1		3			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —10.9mm.; Thermometer, —°1.2 C.; Relative Humidity, +5 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.87	758.7	63.7	17.6	54	SW			3		10						
Constantinople			29.80	756.8	47.5	8.6	81	NE	3.4	1.5			8		SW	0	0		
Fao, (Persian Gulf)			29.96	761.0	68.0	20.0		SE			3		10			Blank	Blank	Rain	
Salonica			29.74	755.6	52.2	11.2		W			1		5						
Valona			29.64	752.8	56.7	13.7		W			1		10						
Varna			29.96	762.0	41.0	5.0		NW			6		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.44	773.2	— 1	—18.3		NE	1	0.4			10		NE	0	0		
Cape Roziere, Quebec			30.11	764.8	— 3	—19.4	68	NW	10	4.5		2	2	NW	NW	0	0		
Chatham, N. B.			30.24	768.1	— 1	—18.3	84	W	8	3.6		0	0			0	0		
Charlottetown, P. E. Island			30.20	767.1	5	—15.0	90	W	11	4.9			10			0.150	3.81		
Father Point, Quebec																			
Fort Garry, Manitoba			30.17	766.3	—10	—23.3	95	E	2	0.9		0	2		Calm	0.12	3.0		
Halifax, N. S.			30.16	766.1	6	—14.4	78	W	9	4.0		0	0			0.046	1.17		
Kingston, Ontario			30.40	772.1	1	—17.2	77	E	5	2.2			10		E	0	0	Light snow	
Montreal, Quebec			30.49	774.4	— 9	—22.8	78	W	18	8		5	5	W	Calm	0	0		
Ottawa, Ontario			30.44	773.2	—12	—24.4	75	N	1	0.4		10	0	Calm		0	0		
Parry Sound, Ontario			30.19	766.8	— 1	—18.3	84	E	14	6.2			10		E	0	0		
Port Dover, Ontario			30.01	762.2	7	—13.9	100	NE	12	5.4			10		Calm	0.20	5.7	Light snow	
Port Stanley, Ontario			29.95	760.7	— 9	—12.8	89	E	21	9.4			10		E(?)	0.60	15.2	Heavy snow	
Quebec, Quebec			30.47	773.9	—12	—24.4	49	SW	7	3.1		0	0			0	0		
Saugeen, Ontario			30.04	763.0	3	—16.1	86	E	12	5.4			10		Calm	0	0		
Stayner			30.13	765.3	2	—16.7	86	SE	18	8			10		SE	Blank	Blank	Light snow	
Sydney, C. B.			30.05	763.3	10	—12.2	81	W	17	7.6		0	8		NW	0.05	1.3	Clearing	
Toronto, Ontario			30.11	764.8	—12	11.1	94	E	27	12.1			10		Calm	0.15	3.8	Heavy snow	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.47	773.9	4	—15.6	100	NW	1	0.4			10			Blank	Blank	Light snow	
Alpena, Mich.			30.06	763.5	1	—17.2	85	NE	22	9.8			10		NE	0.02	0.5	Light snow	
Atlantic City, N. J.			30.44	773.2	24	— 4.4	88	E	10	4.5			10			0	0		
Augusta, Ga.			30.05	763.3	56	13.3	81	SE	5	2.2			10		SE	0	0		
Baltimore, Md.			30.31	769.9	22	— 5.6	72	E	5	2.2			10			Blank	Blank	Light snow	
Barnegat, N. J.			30.38	771.6	20	— 6.7	72	NE	7	3.1			8		NE	0	0	Light snow	
Benton, Montana			29.98	761.5	5	—15.0	100	S	2	0.9			Fog			0	0	Fog	
Bismarck, Dakota			30.13	765.3	3	—16.1	46	N	2	0.9		2	0			0.03	0.8		
Boston, Mass.			30.47	773.9	7	—13.9	77	N	5	2.2			10			0	0		
Breckenridge, Minn.			30.05	763.3	2	—16.7	90	Calm	0	0			10			0.10	2.5		
Buffalo, N. Y.			30.04	763.0	8	—13.3	78	NE	16	7.2			10			0.05	1.3	Light snow	
Burlington, Vt.			30.47	773.9	1	—17.2	71	N	4	1.8			10			0	0		
Cairo, Ill.			29.46	748.3	54	12.2	93	S	8	3.6			10		SW	1.55	39.4	Threatening	
Cape Hatteras, N. C.			30.29	769.4	67	13.9	69	SE	24	10.7		5	0	S		0	0		
Cape Henry, Va.			30.29	769.4	40	4.4	91	E	14	6.3			10		SW	0	0		
Cape May, N. J.			30.41	772.4	29	— 1.7	89	E	12	5.4			10			Blank	Blank	Light snow	
Charleston, S. C.			30.14	765.5	61	16.1	81	SE	16	7.2			10		S	0	0	Threatening	
Cheyenne, W. T.			29.66	753.4	22	— 5.6	85	N	2	0.9			10			0	0	Threatening	
Chicago, Ill.			29.64	752.8	20	— 6.7	70	NE	20	8.9			10			0.20	5.1	Threatening	
Cincinnati, Ohio			29.62	752.3	44	6.7	92	S	10	4.5			10			0.90	22.9	Heavy rain	
Cleveland, Ohio			29.69	754.1	28	— 2.2	94	SE	15	6.7			10			0.49	12.4	Sleet	
Colorado Springs, Col.			29.65	753.1	22	— 5.6	100	N	3	1.3			10			0.09	2.3	Light snow	
Corsicana, Texas			29.65	753.1	56	13.3	87	SW	13	5.8		5	0	W		0	0		
Davenport, Iowa			29.63	752.6	16	— 8.9	100	NE	16	7.2			10		NE	0.02	.5		
Denver, Col.			29.74	755.4	23	— 5.0	86	SW	4	1.8			10			0.44	11.2		
Detroit, Mich.			29.75	755.6	13	—10.6	81	E	18	8.0			10			0.13	3.3	Heavy snow	
Dodge City, Kansas			29.48	748.8	19	— 7.2	84	N	30	13.4			10			0	0		
Dubuque, Iowa			29.74	755.4	13	—10.6	91	NE	16	7.2			10			Blank	Blank	Light snow	
Duluth, Minn.			30.05	763.3	6	—14.4	76	NE	16	7.2			10			0.49	10.2		
Eastport, Me.			30.37	771.4	0	—17.8	70	N	17	7.6		0	0			0	0		
Erie, Penn.			29.89	759.2	22	— 5.6	100	SE	12	5.4			10			Blank	Blank	Sleet	
Escanaba, Mich.			30.02	762.5	4	—15.6	74	NE	15	6.7			10			0.48	12.2	Light snow	
Fort Gibson, I. T.			29.44	747.8	44	6.7	92	NW	14	6.3		0	10		NW	0.51	13.0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.05	763.3	8	13.3	67	W	2	0.9			10		W	0	0		
Galveston, Texas			29.71	754.6	68	20.2	90	S	6	2.7			10		W	0	0	Threatening	
Grand Haven, Mich.			29.75	755.6	10	—12.2	89	E	15	6.7			10			Blank	Blank	Light snow	
Indianapolis, Ind.			29.46	748.3	43	6.6	91	SE	10	4.5			10		S	1.60	40.6	Light rain	
Indianola, Texas			29.73	755.1	68	20.0	100	W	10	4.5			10			0.02	0.5	Light rain	
Jacksonville, Fla.			30.11	764.8	67	19.4	84	SE	10	4.5		2	0	S		0	0		
Keokuk, Iowa			29.48	748.8	22	— 5.6	85	NE	14	6.3			10			0.17	4.3	Sleet	
Key West, Fla.			30.12	765.0	75	23.9	72	SE	15	6.7		2	Haze	SE		0	0		
Kittyhawk, N. C.			30.29	769.4	49	9.4	79	SW					10		S	0	0		
Knoxville, Tenn.			29.83	757.7	47	8.3	85	N	4	1.8			10		W	0.17	4.3		
La Crosse, Wis.			29.89	759.2	19	—12.8	78	N	10	4.5			10		N	0.63	0.8		
Leavenworth, Kan.			29.61	752.1	25	— 3.9	100	N	15	6.7			10		N	0.65	16.5	Sleet	
Lexington, Ky.			29.76	755.9	43	6.1	100	N	9	4.2			10			0.12	3.0	Light rain	
Long Branch, N. J.			30.49	774.4	17	— 8.3	67	E	8	3.6			10			0	0		
Louisville, Ky.			29.59	751.6	47	8.3	85	SE	4	1.8			10			0.67	17.0	Light rain	
Lynchburg, Va.			30.25	768.3	27	— 2.8	88	NE	4	1.8			10			0.01	0.3		
Malone, N. Y.																			
Marquette, Mich.			30.09	764.3	4	—15.6	86	E	12	5.4			10		E	Blank	Blank	Light snow	
Memphis, Tenn.			29.53	750.0	60	15.6	94	S	10	4.5			10		S	1.25	31.7		
Milwaukee, Wisconsin			29.80	756.9	12	—11.1	100	NE	20	8.9			10			0.51	13.0	Light snow	
Mobile, Ala.			29.89	759.2	65	18.3	94	S	12	5.4			10		SW	0	0		
Montgomery, Ala.			29.89	759.2	63	17.2	78	S	12	5.4			10		S	0	0	Threatening	
Morgantown, W. Virginia			29.79	756.7	42	5.6	91	SE	7	3.1			10			0.39	9.9	Light rain	
Mt. Washington, N. H.			29.56	750.8	— 6	—21.1	100	NW	6	2.7		2	0	NW		0	0		
Nashville, Tenn.			29.63	752.6	59	15.0	76	S	16	7.2			10			0.18	4.6	Heavy rain	
New Haven, Conn.			30.51	774.9	10	—12.2	79	NE	6	2.7			10		NE	0	0		
New London, Conn.			30.50	774.7	13	—10.6	62	N	2	0.9			10			0	0		
New Orleans, La.			29.80	756.9	70	21.1	87	S	12	5.4			10		W	0	0	Threatening	
Newport, R. I.																			
New York, N. Y.			30.48	774.2	12	—11.1	80	E	12	5.4			10			0	0		
Norfolk, Va.			30.26	768.6	40	4.4	82	E	11	4.9		2	5	SW		0	0		
North Platte, Neb.			29.53	750.0	21	— 6.1	71	NE	6	2.7			10		NW	0	0		
Omaha, Neb.			29.82	757.4	11	11.7	100	N	22	9.8			10		N	0	0		
Oswego, N. Y.			30.32	770.1	12	—11.1	81	SE	12	5.4			10			Blank	Blank	Light snow	
Peck's Beach			30.43	772.9	26	— 3.3	100	E	20	8.9			10			0	0	Light snow	
Pembina, D. T.			30.15	765.8	— 6	—21.6	81	Calm	0	0			10			0.03	0.8		
Philadelphia, Penn.			30.44	773.2	17	— 8.3	67	SE	12	5.4			10		NE	Blank	Blank	Light snow	
Pike's Peak, C. T.			29.41	747.0	32	0.0	100	W	8	3.6			Fog			0.17	4.3	Fog	
Pittsburgh, Penn.			29.86	758.4	33	0.6	100	E	6	2.7			10			0.20	5.1	Light rain	
Port Huron, Mich.			29.86	758.4	9	—12.8	89	E	12	5.4			10			0.72	18.3	Heavy snow	
Portland, Maine			30.46	773.7	5	—15.0	75	W	1	0.4		5	Haze			0	0		
Portland, Or.			30.30	769.6	39	3.9	82	S	4	1.8			10			0.07	1.8		
Punta Rassa, Fla.			30.15	765.8	72	22.2	84	SE	22	9.8		2	2		SE	0	0		
Rochester, N. Y.			30.19	766.8	6	—14.4	100	E	20	8.9			10			0.03	0.8	Light snow	
Salt Lake City, Utah			29.83	767.7	26	— 3.3	53	N	12	5.4			10			0.22	5.6	Light snow	
Sandy Hook, N. J.			30.47	773.9	16	— 8.9	83	E	8	3.6			10		E	0	0		
San Diego, Cal.			30.03	762.7	50	10.0	86	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.25	768.3	46	7.8	40	NW	16	7.2			0			0	0		
Santa Fe, N. M.			29.34	745.2	26	— 3.3	69	N	6	2.7			10		NW	0.02	0.5	Light snow	
Savannah, Georgia			30.10	764.5	65	18.3	83	SE	10	4.5			10		W	0	0		
Shreveport, La.			29.65	753.1	65	18.3	73	W	8	3.6			10			0.35	8.9		
Springfield, Mass.			29.51	749.5	8	—13.3	67	NW	4	1.8			10			Blank	Blank	Light snow	
St. Louis, Mo.			29.45	748.0	45	7.2	85	SE	1	0.4			10			0.88	22.4	Light rain	
St. Marks, Fla.			30.05	763.3	63	17.2	88	SE	14	6.2		Haze	5		SE	0	0		
St. Paul, Minn.			29.92	760.0	3	—16.1	86	N	12	5.4			10			0.05	1.3	Light snow	
St. Paul's Island, Alaska			29.90	759.4	21	— 6.1	85	NNE	6	2.7			10			0.03	0.8		
Squan Beach, N. J.			30.48	774.2	20	— 6.7	70	SE	8	3.6			10			0	0		
Toledo, Ohio			29.64	752.8	17	— 8.3	83	NE	24	10.7			10		NE	Blank	Blank	Sleet	
Tybee Island, Ga.			30.13	765.3	60	15.6	94	S	10	5.4			10		SW	0	0		
Vicksburg, Miss.			29.73	755.1	70	21.1	71	SE	16	7.2			10			0	0		
Virginia City, Mon.			29.63	752.6	15	— 9.4	82	Calm	0	0			10			0.05	1.3		
Washington, D. C.			30.31	769.1	21	— 6.1	100	E	8	3.6			10			0.33	8.4	Heavy snow	
Wilmington, N. C.			30.20	767.1	60	15.6	65	SE	12	5.4		5	5	W	W	0	0		
Wood's Hole, Mass.			30.49	749.0	8	13.3	55	NW	6	2.7			10			0	0		
Wytheville, Va.			29.81	731.8	43	6.1	75	S	4	1.8			10			0.05	1.3	Heavy rain	
Yankton, D. T.			30.03	762.7	6	—14.4	76	N	10	4.5			10		N	0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	80	26.7		NE	13	5.8		2	5	E		0.10	2.5		
Point-a-pitre, G'd'loupe, "			30.03	762.7	73	22.8		E				8	0			0	0		
Havana, Cuba, W. I.			29.92	759.7	75	23.9	76	SE	6	2.7		0	0			0	0		
Kingston, Jamaica, W. I.			30.27	768.8	74	23.3	97	Calm	0	0		1	1	S		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	73	22.8	71	NE	5	2.2		0	0			0	0		
St. Georges, Bermudas			30.37	771.4	60	15.6	71	N	12	5.4		0	10			0.05	1.3		
Honolulu, Sandwich Is.			30.11	764.8	71	21.7		NE			2					Blank	Blank	Threatening	
Makawao, Sandwich Is.			30.00	762.0	62	16.7	88	SE	2.4	1.1		0	10		SE	0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.30	769.6	—26	—32.2		S	5	2.2		5	0	S		0	0		
Clifton, Jamaica, W. I.			30.13	765.3	63	17.2		NE	2	0.9		5	2	NE		0	0		C. Partridge.
St. Johns, Newfoundland			29.84	757.9	13	—10.6	100	W					10			0.61	15.5		John Delaney.
St. Johns, Porto Rico W. I.			30.15	765.9	72.1	22.3	88	S			1	1	3	Calm		0	0		Leon M. Acuña.
Ellyria, Ohio	28.80	733.8			29	— 1.7		SE	4	1.8		0	10			1.13	28.7		H. M. Redington.
Indianola, Iowa	28.92	734.2			12	—11.1		NE				0	10			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 2, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.72	755.0															Charnot.
Algiers			29.66	753.3	51.0	10.8	77	SW			5		10			0.661	16.8	Rain	Peter.
La Calle			29.65	753.0															Kuntz.
Tunis			29.64	752.9	57.2	14.0	59	WNW			4		5			0.088	2.5	Rainy	Jacques.
Sfax			29.65	753.0	52.5	11.4													Chauvey.
Saïda			29.71	754.6				WSW			5		6			0	0		Grosjean.
Tebessa			29.66	753.1															Colin.
Geriville			29.71	754.5	49.1	9.5		NW			5		8			0	0		Bernadach.
Laghouat			29.67	753.7	57.2	14.0	32	NW			4		7			0	0		Poinsignon.
Biskra			29.65	753.2	58.8	14.9	50	NW			2		5			0.267	7.0	Hazy	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.70	754.3	28.6	− 1.9	82	NE			5		10			0.220	5.6	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.80	759.1	26.1	− 3.3	77	NE			2		0			0	0		I. R. Observatory.
Eperies			29.79	756.6	39.2	4.0	75	Calm			0		0			0	0		Julius Mikolik.
Gratz			29.75	755.7	34.8	1.3	81	NW			2.5		10			0	0		Andreas Rospini.
Hermannstadt			29.71	754.6	41.7	5.4	64	S			5		7			0	0		Prof. Reissenberger.
Kremsmünster			29.64	752.8	33.8	1.0	81	E			7		6			0	0		Prof. C. Wagner.
Lemberg			29.88	759.0	30.5	− 1.1	85	SE			4		7			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.76	755.8	38.5	3.6	90	N			1		0			0	0		Habzsuda Daniel.
Pola			29.35	745.4	37.2	2.9	58	ENE			6		10			0.307	7.80	Threatening	I. R. Hydrographic Office
Szegedin			29.64	752.8	28.8	− 1.8	92	E			2		10			0	0		Karl Stancel.
Trieste			29.32	744.8	36.1	2.3	60	ENE			8		10						Prof. V. Farolfi.
Vienna			29.78	756.5	33.8	1.0	78	N			1		9			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.54	750.4			37.0	2.8	70	E			1		4		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.19	766.8	38.0	3.3		E	19	8.5			2			0.30	7.6		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.12	765.0	40	4.4		ENE			3		7						William McNeil.
Armagh Observatory			30.10	764.5	36.9	2.7		NE	9	4.0			9						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea			29.87	761.2	33.7	0.9		NE			4		10						The Liverpool Obs.
Bidston, Liverpool Obs			30.04	763.0	38.4	3.6		NE			1-3		9						J. Dreyer.
Birr Castle			29.94	760.5	33.1	0.6		NE			2		10						J. Mc. Landsborough.
Bradford																			
Bridgetown, (Barbadoes)																			
Bywell								N			1		10					Snow	H. Todd.
Cambridge Observatory			29.85	758.2	33.0	0.6		NW			2		0						Sgt. D. E. Hunt
Cape Town, Cape Colony			29.84	757.9	90	32.2		SE	7	3.1			1						The Royal Observatory.
Cape Good Hope Obs.	29.88	758 9			70.8	21.6	48	NE					10						John McLaren.
Cardington			29.87	758.7	32.0	0.0		NE					9			0	0		T Bell.
Carlisle			30.04	763.0	37.6	3.1		NE					10					Snow	James Conroy.
Chatham			29.79	756.7	33.0	0.6		NE			2								
Cochyfoel Farm					80.0	26.7		SE			2		9						Sgt. W. F. Hopkins
Colombo, (Ceylon)			29.91	759.7	29.0	— 1.7		NE			5		10						R. E. Power.
Dartmoor			29.87	758.7	39	3.3		E			6		5						J. Mac Gowan, Jr.
Donaghadee			30.07	763.8	37	2.8		NE			4		5						J. Costello.
Dover			29.77	756 1															
Dublin			30.02	762.5	55.7	13.2		NE					9						G. Goldney.
Durham Observatory			29.94	760.5	34.0	1.1		ENE	2.6	1.2			10					Mist	Thomas Mackereth.
Eccles, (near Manchester)			29.82	757 4	36.0	2.2		NE	27	12.1			9						The Fa mouth Obs.
Falmouth Observatory			30.00	762.0	69.8	21.0		SE			1		10						Pvt. G. Salmon.
Fort Napier, (Natal)			29.99	761.7	41	5.0		ENE			6		10						Queen's College.
Galway			29.72	754.9	55	12.8		W			5		5						Sgt. J. Brewster.
Gibraltar, (Mediterranean)			30.11	764.8	38.0	3.3		ENE			5		9						The Glasgow Obs.
Glasgow Observatory																			F. Toller.
Gloucester, the Asylum			29.85	758.2	33	0.6		ENE			4		8						G. T. Watson.
Great Yarmouth			29.82	757.2	31.6	— 0.2		NE			2		10					Snowy	The Royal Observatory.
Greenwich Royal Obs			29.72	754.9	36	2.2		E E			4		8						Dr. S. E. Hoskins.
Guernsey			29.96	761.0	31.5	— 0.3		E E					10					Snow	Moorside Observatory
Halifax, Moorside Obs			29.88	758.9	25.0	— 3.9		E			6		10						Corp'l J. Y. Thompson.
Halifax, (Nova Scotia)			29.78	756.4	39	3.9		N E			5		6						W. B. Moyle.
Helston			29.96	761.0	37	2.8		ENE			4		5						John Tilston.
Holyhead																			
Hull Park			29.82	757.4	32.3	0.2		N	18	8.0			10					Snow & mist	The Met. Office.
Kew Observatory			30.04	763.0	39	3.9		ENE			4		9						George Mitchell.
Kingstown																			
Lampeter			29.90	759.4	33.0	0.6		NE			3		10						William J. Harrison
Leicester			29.98	761.5	35.3	1.8		E					10						Dr. James Nicol.
Llandudno			29.64	752.8	58.0	14.4		SW			4		6						Sergt. E. Dowling.
Malta, (Mediterranean)																			
Markree																			
Marlborough College																			
Moville			30.18	766.6	41	5.0		E			2		5						William D. Penny.
Nairn			30.20	767.3	75.0	23.9		S			4		6						Surgeon I. Jameson
Nassau, (Bahamas)			30.06	763.5	38	3.3		ENE			4		7						John Wm. Irvine.
North Shields			29.93	760.2	32.8	0.4		NE			4		10		NE			Snow	E. J. Lowe.
Nottingham																			J. R. Mann.
Osborne, New Barn Cottage			29.91	759.7	31.8	— 0.1		NNE			4		10					Light snow	St. Mary's College.
Oscott, (Birmingham)			29.83	757.7	33	0.6		NE			1		10					Light snow	Radcliffe Observatory.
Oxford, Radcliffe Obs			29.81	757.2	37	2.8		N E			3		10						John Merrifield.
Plymouth																			
Portishead																			
Prospect, (Bermuda)			29.96	761.0	38	3.3		NNE			4		8						W. Kennedy.
Roche's Point			29.90	759.4	35	1.7		NE			4		6					Mist	John C. Walker.
Saint Ann's Head																			
St. Helier, Jersey			30.25	768.3	40	4.4		N	17	7.6			2						Rev. Dr. Clouston.
Sandwick Manse, Orkneys			30.00	762 0	33.7	0.9		ENE			5		10					Light hail	F. Heard.
Scarboro'			29.67	753.6	48.4	9.1		NE			3		8					Haze	W. H. Lyne.
Scutari, (Turkey)			29.95	760.7	34.2	1.2		NE			3		10					Snow	W. F. Cooper.
Sheffield																			
Sidmouth			30.04	763.0	38.7	3.7		NE			5		7			0	0		Francis Redford.
Silloth Rectory			29.84	757.9	35.0	1.7		NNE			1		10						Rev. C. J. Steward.
Somerleyton, (Lowestoft)			29.96	761.0	33.7	0.9		NE			4		10						Stonyhurst Obs.
Stonyhurst Observatory			30.22	767.6	39	3.9		ENE			3		2						John Smith.
Stornoway, Lewis C., Hebr.			29.82	757.4	32.5	0.3		E			1		10						Charles H. Griffith.
Strathfield Turgiss			29.84	757.9	33.5	0.8		ENE			2		10						Rev. John Slatter.
Streatley Vicarage			30.25	768.3	40	4.4		ENE			4		5						William Lawrence.
Sumburgh Head, Shetland																			
Taunton College			30.23	767.8	45	7.2		E			3		6						John Trotter.
Thurso			29.75	755.6	38	3.3		NE			6		8						Royal Institution.
Truro Royal Institution			30.01	762.2	39	3.9		ENE	20	8.9			7						Meteorological Obs.
Valencia																			
Wick																			S. H. Miller.
Wisbech																			William J. Harris.
Worthing			29.78	756.4	3 .2	1.8		NNE			1		7						
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.13	765 4	28.8	— 1.8	84	E			2		0						
Fanöe			30.09	764.3	31.3	— 0.4	70	E			6		5					Snow	
Godthaab, (Greenland)			29.30	744.1	14.0	—10.0		NNE			6		10						
Stykkisholm, (Iceland)			30.10	764.5	43.2	6.2	71	S			6		5						
Thorshavn, (Faröe)			30.37	771.5	42.3	5.7	52	Calm			0		1						
Vestervig			30.15	765.8	30.2	— 1.0	69	ENE			4		0						

[illegible] the Vienna symbols. No distinction is made

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.53	750.0	55.2	12.9	97						5						Normal School.
Alençon			29.69	754.1	36.5	2.5	82	NE			1		10			0	0		Normal School.
Amiens			29.66	753.4	37.4	3.0	80	E			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.64	752.8	36.0	2.2	89	NNE	7.2	3.2			10		NE	0.016	0.4	Snow	Beaumette Observatory.
Beauvais			29.72	754.0	36.5	2.5	72	NNE			2		10			0	0		Normal School.
Besançon			29.61	752.2	40.3	4.6	68	N			3		0			0	0		Normal School.
Bourges			29.61	752.2	41.0	5.0		NW			2		10		NW	0	0		Normal School.
Brest			29.65	753.2	36.9	2.7	89	NNE			2		10		NNE	0.039	1.00	Fog	Naval Observatory.
Caen			29.71	754.5	40.1	4.5	82	NE			2		10		NE	0.024	0.6		Normal School.
Carcassonne																			
Chartres			29.66	753.4	33.3	0.7		N			1		10			0.185	4.7		Normal School.
Chaumont			29.61	752.2	4[illegible].3	4.6		N			2		0			0	0		Normal School.
Le Mans			29.68	753.8	36.1	2.3	72	E			2		8		E	0.059	1.5		Normal School.
Mirecourt			29.55	750.5	39.0	3.9		NNE			4	8		SSW		0	0		Normal School.
Orleans			29.66	753.3	34.2	1.2	89	NW			2		10		NW	0.087	2.2		Normal School.
Paris			29.66	753.4	36.5	2.5		NE			2		10			0	0	Fog	National Observatory.
Parthenay			29.61	752.0	48.2	9.0	90	N			2		8		N	0	0		
La Roche sur Yon			29.63	752.7	36.0	2.2	85	NW			2		10			0	0		Normal School.
Rouen			29.70	754.3	39.0	3.9	60	E			2		2		NE	0	0		Normal School.
Saint Lo			29.67	753.7	35.8	2.1	93	NE			3		10		NE	0.079	2.0		Normal School.
Villefranche			29.61	752.2	41.9	5.5	77	NNW			1		8		NW	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.87	758.7	71.4	21.9	69	NNW			3		0			0	0		Père Pascall.
Mont-Louis	24.31	617.5			32.9	0.5	67	NW	12.5	5.6			5		SW	0	0		—. Falguère.
Montsouris (near Paris)			29.66	753.3	36.7	2.6	79	NNE	8.1	3.6			10			0.004	0.1		Marié Davy.
Perpignan	29.44	747.7			48.6	9.2	56	WNW	13.	5.8			3		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.70	753.4	39.2	4.0	73	NNE			2		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.68	753.9	38.1	3.4	73	NE			2		10		ENE	0.106	2.7		C. Marquet.
Versailles, (near Paris)			29.67	753.6	34.9	1.6	78	NE			2		10			0	0		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.75	755.7	34.2	1.2	68	E			5		7			0	0		Prof. Hoh.
Berlin			29.07	761.2	31.1	— 0.5	70	E			2		0			0	0		Prof. Arndt.
Breslau			29.92	760.0	30.4	— 0.9	76	ESE			2		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.69	754.0	34.2	1.2	68	N[illegible]			7		9			0	0		A. Leuz.
Cassel			29.75	755.6	33.3	0.7	90	NE			2		10			0	0		Dr. H. Mohl.
Cologne			29.79	756.7	38.3	3.5	79	SE			2		8			0	0		Dr. Gaithe.
Emden			30.05	763.2	31.8	— 0.1	68	E[illegible]E			2		10			0	0		Prof. Prestel.
Frankfort on the Main			29.82	757.3	36.5	2.5	70	NNE			3		4			0	0		Physical Society.
Friedrichshafen			29.67	753.7	28.4	— 2.0	80	NE					10			0	0		M. Wilhelm.
Hamburg			30.02	762.4	32.9	0.5	63	E[illegible]E			4		10			0	0	Fog	W. Reinart.
Kiel			30.06	763.4	32.2	0.1	66	E[illegible]E			4		8			0	0		Prof. G. Karsten.
Königsberg			30.08	764.0	25.5	— 3.6	70	E			2		2			0	0		Prof. E. Luther.
Köslin			30.21	767.2	30.4	— 0.9		E			1		1			0	0		Dr. T gert.
Leipsic			29.86	758.4	31.3	— 0.4	89	NNE			3		10			0	0		Prof. Bruhns.
Münster			29.82	757.5	32.9	0.5	88	NE			3		10			0	0		Prof. E. Heis.
Posen			29.99	761.8	25.9	— 3.4	81	NE			5		0			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			29.64	752.9	35.6	2.0	64	NE					2			0	0		Hartwig and Fulk.
Stuttgart			29.68	753.9	31.6	— 0.2	75	NE					10			0	0		Mr. Wurth.
Thorn			30.02	762.4	25.5	— 3.6	68	E			5		10			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.65	753.1	34.0	1.1	81	NE			7		10			0	0		Prof. Flesch.
Wustrow			30.08	763.9	28.4	— 2.0	90	ENE			4		8			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Mon-alieri								NW			2		10			0.256	6.5		
Mondovi			29.[illegible]4	7[illegible]0.2	33.1	0.6	85	NW			2		10			Blank	Blank	Snow	
Genoa			29.41	747.1	41.7	5.4	[illegible]0		9.4	4.2			10	S		0.008	0.2		
avia			29.50	749.2	36.0	2.7	76	NW			1		10			0	0		
Verona			29.47	748.6	45.1	7.2	74	E			2		10			0	0		
Padua			29.41	747.1	40.3	4.6	59	E[illegible]E	19.9	8.9			10			0	0		
Parma																			
Bologna			29.52	749.7	33.8	1.0	83	WNW			6		10			Blank	Blank	Snow	
Livorno																0.146	3.7	Snow	
Urb no			29.35	745.5	34.7	1.5		NNE			6		10			0.146	3.7	Rain	
Anco n			29.38	746.3	43.9	6.8	81	SE			6		10			0.118	3.0	Rain	
Flora			29.24	742.8	36.7	2.6	90	NNW	8.1	3.6			10			0.043	1.1	Rain	
Rome			29.23	742.4	44.4	6.9	87	W	5.6	2.5			10			0.150	3.8	Rain	
Naples, O.U.			29.22	742.2	49.1	9.6	71	WNW			6		10	WNW		0.299	7.6	Rain	
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.22	742.1	54.1	12.3	84	W	31.1	13.9			9			0	0		
Cosenza			29.41	746.9	45.3	7.4		NNW			8		10			0.553	14.3	Rainy	
Catania, (Sicily)			29.28	743.6	57.0	13.9	40	SW			4		0	W		0	0		
[illegible]posto																			
Pa ermo			29.40	746.7	56.3	13.5	51	WSW			8		7	W		0.024	0.6		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.81	757.2	30.0	2.3		NE			4								
Groningen			29.86	758.4	28.9	— 1.7		ENE			4								
Helder			29.87	758.8	29.7	— 1.3		ENE			4								
Utrecht			29.78	756.4	34.2	1.2		ENE			4		5						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.25	768.3	33.8	1.0	57	Calm	0	0			0			0	0		
Christiania			30.33	770.3	32.0	0.0	63	ENE	0.6	1.3			0			0	0		
Tromsö			29.69	754.2	33.4	0.8	90	SW			7		10			0.268	6.8	Snow	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.43	747.4			47.7	8.7	77	N	9.8	4.4			10			Blank	Blank		

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.96	761.0	25.2	— 3.8	78	NE	7	3			10						Astronomical Obs.
Wilna			30.10	764.6	25.2	— 3.8	66	SE	4	2			9						Astronomical Obs.
Dorpat			30.10	764.5	23.9	— 4.5	80	WSW	2	1			10						Physical Cabinet.
St. Petersburg			30.02	762.3	22.5	— 5.3	93	WNW	9	4			10						Central Physical Obs.
Kieff			30.20	767.0	17.2	— 8.2	79	SSE	7	3			1						Physical Cabinet.
Nikolaiev			30.11	764.9	22.6	— 5.2	93	NE	7.8	3.5			10			Blank	Blank	Snow	
Kertch			29.96	761.0	32.7	0.4	87	NE	7.8	3.5			10						Lagorio.
Moscow			30.17	766.2	24.4	— 4.2	55	W	7.8	3.5			0						Meteorological Obs.
Lugan			30.09	764.2	25.0	— 3.9	73	E	13	6			10						Meteorological Obs.
Archangel			29.82	757.4	19.0	— 7.2	90	W W	13	6			10						Ogorodnikof.
Tiflis			29.83	757.6	53.2	11.8	65	NE	7.8	3.5			9						Physical Obs.
Astrakhan			30.24	768.0	31.1	— 0.5	39	ENE	10.1	4.5			6						Sebastianof.
Kasan			30.01	762.2	18.7	— 7.4	89	W	3.4	1.5			10						Physical Cabinet.
Orenburg			30.33	770.3	13.3	—11.4	93	SW	7.8	3.5			2						Tschernischef.
Ekaterinburg			30.12	765.0	11.8	—11.2	71	SW	10.1	4.5			10			Blank	Blank	Snow	Meteorological Obs.
Kasaly			29.67	753.5	30.0	— 1.1	92	NE	20	9			10						Bobrof.
Tashkend			29.95	760.7	57.9	14.4	33	NE	13	6			8						Michelson.
Barnaul			29.95	760.7	9.0	—12.8	76	WSW	7.8	3.5			0						Meteorological Obs.
Yeniseisk			28.99?	736.3?	24.4	— 4.2	79	S	25	11			8						Yarks.
Irkutsk																			Usolzef.
Oorga			30.33	770.3	— 2.2	—19.0	90	Calm	0	0			3						Mossin.
Peking, (China)			30.22	767.6	33.4	0.8	49	Calm	0	0			0						Physical Observatory.
Nertchinsk			30.07	763.8	— 0.0	—17.8	80	Calm	0	0			0						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.67	753.7	42.4	5.8	77	N	0.7	0.3			10			0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.17	766.2	28.9	— 1.7	92	Calm			0		0			0	0		Dr. Hildebrandsson.
Hernosand			30.23	767.8	36.3	2.4	68	Calm			0		1			0	0		
Upsala			30.24	768.1	26.4	— 3.1	78	NW			4		0						
Stockholm			30.19	766.9	30.6	— 0.8	73	NNE			4		0			0	0		
Wisby																			

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction.	Winds. Velocity.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Geneva	28.24	718.4			35.8	2.1	69	NNE		2		10			0	0		The Observatory.
Zurich	28.23	729.8			28.4	— 2.0	92	NE		2		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —7.0mm.; Thermometer, —3°7. C.; Relative Humidity, +4 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction.	Winds. Velocity.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.88	759.0	64.9	18.3	59	NE		4		10						
Constantinople			29.69	754.1	46.0	7.8	82	ENE	19.0	8.5		10		NE	0.177	4.5		
Fao, (Persian Gulf)			30.08	764.0	67.1	19.5		NE		3		10						
Salonica			29.24	742.8	46.9	8.3		NE		4		10			Blank	Blank	Rain	
Valona			29.27	743.5	52.9	11.6		E		3		10						
Varna			29.86	758.5	39.4	4.0		SW		4		10			Blank	Blank	Light rain	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Winds. Direction.	Winds. Velocity.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather.	Observer.
Brockville			29.93	760.2	10	—12.2		Calm	0	0		10		N	0.60	15.2	Light snow.	
Gaspe Roziere, Quebec			30.16	766.0	12	—11.1	90	W	1	0.4	5	8	W	W	0	0		
Chatham, N. B.			30.09	764.3	13	—10.6	100	E	8	3.6		10		E	0.43	10.9	Heavy snow	
Charlottetown, P. E. Island			30.09	764.3	12	—11.1	90		15	6.7		10		Calm	0.250	6.35	Light snow.	
Father Point, Quebec			29.65	753.1	2	—16.7	86	NE	13	5.8		Haze			0	0		
Fort Garry, Manitoba			30.31	769.6	—25	—31.7	91	S	1	0.4	0	Haze			0	0		
Halifax, N. S.			29.84	775.9	25	— 3.9	93	NE	7	3.1		10		Calm	0.50	12.7	Heavy snow.	
Kingston, Ontario			29.97	761.2	11	—11.7	80	Calm	0	0		10		Calm	0.35	8.9		
Montreal, Quebec			29.83	757.7	12	—11.1	88	NE	12	5.4	Haze	Haze			0.28	7.1		
Ottawa, Ontario			29.83	757.7	9	—12.8	63	NE	8	3.6	5	0	W		0.2	5.1	Clearing	
Parry Sound, Ontario			30.01	762.2	6	—14.4	75	N	7	3.1	2	5	N	N	0.02	0.5		
Port Dover, Ontario			30.03	762.7	13	—10.6	81	Calm	0	0	10	0	Calm		0.52	13.2		
Port Stanley, Ontario			30.06	763.5	—10	—23.3	90	NW	19	8.5		10		W(?)	0.60	15.2		
Quebec, Quebec			29.93	760.2	11	—11.7	79	NE	19	8.5		10		NE	0.20	5.1	Light snow.	
Sangeen, Ontario			30.04	763.0	6	—14.4	90	NE	6	2.7		10		Calm	0.21	5.3		
Stayner			30.00	762.0	7	—13.9	77	NW	5	2.2	5		W		0.70	17.8		
Sydney, C. B.			30.24	768.1	12	—11.1	94	E	8	3.6		10		Calm	0	0	Light snow.	
Toronto, Ontario			30.02	762.5	8	—13.3	96	W	8	3.6		10		Calm	0.65	16.5		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.77	756.1	18	— 7.8	100	Calm	0	0			10			1.27	32.3		
Alpena, Mich.			30.12	765.0	4	—15.6	74	NW	8	3.6			10		NW	0.03	7.6	Threatening	
Atlantic City, N. J.			29.79	756.7	35	1.7	100	Calm	0	0			Fog			0.30	7.6	Fog	
Augusta, Ga.			29.98	761.5	64	17.8	91	SW	5	2.2			10		SW	1.05	26.7	Heavy rain	
Baltimore, Md.			29.79	756.7	36	2.2	90	W	1	0.4			10			0.86	21.6		
Barnegat, N. J.			29.72	754.9	31	— 0.6	100	S	3	1.3			Fog			0.30	7.6	Fog	
Benton, Montana			29.74	755.4	30	— 1.1	89	SW	16	7.2		0	0			0	0		
Bismarck, Dakota			30.11	764.8	2	—16.7	72	S	10	4.5			10		S	0	0		
Boston, Mass.			29.73	755.1	20	— 6.7	100	N	6	2.7			10			0.70	17.8	Threatening	
Breckenridge, Minn.			30.34	770.6	—12	—24.4	85	NW	4	1.8		0	0			0	0		
Buffalo, N. Y.			30.01	762.2	11	—11.7	79	W	4	1.8		Haze	Sm'e			0.34	8.6		
Burlington, Vt.			29.88	759.0	18	— 7.8	68	N	8	3.6			10			0.24	6.1		
Cairo, Ill.			30.20	767.1	25	— 3.9	87	N	12	5.4			10			0	0		
Cape Hatteras, N. C.			29.96	761.0	66	18.9	89	SW	32	14.3			10		SW	0.04	1.0	Threatening	
Cape Henry, Va.			29.86	758.4	62	16.7	89	W	15	6.7			10		SW	0	0		
Cape May, N. J.			29.79	756.7	39	3.9	100	NW	8	3.6			Fog			0.61	15.5	Fog	
Charleston, S. C.			30.03	762.7	65	18.3	90	SW	14	6.3		5	5	SW	SW	0	0		
Cheyenne, W. T.			29.85	758.2	9	—12.8	67	W	8	3.6		0	0			0.09	2.3		
Chicago, Ill.			30.22	767.6	12	—11.1	80	NW	5	2.2			10			0.29	7.5	Threatening	
Cincinnati, Ohio			30.13	765.3	26	— 3.3	76	NW	12	5.4			10		W	0.04	1.0		
Cleveland, Ohio			30.07	763.8	13	—10.6	90	NW	11	4.9			10			0.52	13.2	Light snow	
Colorado Springs, Col.			29.91	759.7	2	—16.7	100	W	5	2.2		0	0			0.36	9.1		
Corsicana, Texas			30.00	762.0	35	1.7	80	N	15	6.7			10			0	0		
Davenport, Iowa			30.30	769.6	10	—15.0	88	NW	1	.4		0	Haze			0	0		
Denver, Col.			29.97	761.2	7	—13.9	77	Calm	0	0		0	0			0.06	1.5		
Detroit, Mich.			30.12	765.0	13	—10.6	81	NW	8	3.6			10			1.29	32.8		
Dodge City, Kansas			29.92	760.0	12	—11.1	80	NE	2	0.9			10			0	0		
Dubuque, Iowa			30.29	769.4	2	—16.7	72	NW	2	0.9			10		SW	0	0		
Duluth, Minn.			30.31	769.9	0	17.8	69	Calm	0	0			10			0	0		
Eastport, Me.			29.79	765.6	23	— 5.0	100	NE	44	19.7			10			0.22	5.6	Light snow	
Erie, Penn.			30.00	762.0	13	—10.7	100	Calm	0	0			10			Blank	Blank	Light snow	
Escanaba, Mich.			30.22	767.6	3	—16.1	78	NW	8	3.6			10			0.03	0.8		
Fort Gibson, I. T.			30.10	764.5	27	— 2.8	88	NE	14	6.3			10		NE	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.26	768.6	10	12.2	69	SE	10	4.5			10		SE	0	0		
Galveston, Texas			29.80	756.9	64	17.8	94	E	10	4.5			10		E	0.04	1.0	Threatening	
Grand Haven, Mich.			30.17	766.3	11	—11.7	69	NE	3	1.3		5	0	NW		0	0		
Indianapolis, Ind.			30.17	766.3	20	— 6.7	85	NW	10	4.5			10		NW	0.38	9.7		
Indianola, Texas			29.81	757.2	63	17.2	72	N	24	10.7			10			0	0		
Jacksonville, Fla.			30.05	763.2	67	19.4	90	S	7	3.1		2	0	W		0	0		
Keokuk, Iowa			30.29	769.4	9	—12.8	78	Calm	0	0		0	0			1.37	34.8		
Key West, Fla.			30.10	764.5	75	23.9	76	SE	16	7.2		5	Haze	SE		0	0		
Kittyhawk, N. C.			29.91	759.7	63	17.2	90	SW					10		SW	0	0		
Knoxville, Tenn.			29.91	759.7	54	12.2	93	Calm	0	0			10		SW	2.56	65.0		
La Crosse, Wis.			30.28	766.6	— 2	—18.9	67	N	2	0.9		10	Haze	N		0	0		
Leavenworth, Kan.			30.33	770.4	11	—11.7	75	N	1	0.4		0	0			0.01	0.3		
Lexington, Ky.			30.13	765.3	27	2.8	77	NW	16	7.2			10		NW	0.05	1.3		
Long Branch, N. J.			29.80	756.9	33	0.6	100	NW	6	2.7			Fog			0.86	21.8	Fog	
Louisville, Ky.			30.12	765.0	26	— 3.3	79	W	16	7.2			10		W	0.09	2.3		
Lynchburg, Va.			29.84	757.9	48	8.9	92	SW	2	0.9		5	5	W	W	2.02	51.2		
Malone, N. Y.																			
Marquette, Mich.			30.25	768.3	1	—17.2	71	NW	8	3.6			10		NW	0	0		
Memphis, Tenn.			30.10	764.5	35	1.7	80	NE	12	5.4			10			0	0		
Milwaukee, Wisconsin			30.26	768.6	9	—12.8	78	NW	3	1.3			10			0.08	2.0		
Mobile, Ala.			29.92	760.0	68	20.0	90	SW	4	1.8		5	5	W	SW	0.08	2.0		
Montgomery, Ala.			29.97	761.2	57	13.9	91	Calm	0	0			10			0.97	24.6		
Morgantown, W. Virginia			29.96	761.0	34	1.1	84	NW	10	4.5			10			0.43	10.9		
Mt. Washington, N. H.			29.62	752.3	21	— 6.1	100	NW	38	17.0			Fog			0	0		
Nashville, Tenn.			30.10	764.5	34	1.1	90	NW	10	4.5			10			0.39	9.9		
New Haven, Conn.			29.77	756.1	22	— 5.6	85	NE	12	5.4			10		NE	0.41	10.4	Light mist	
New London, Conn.			29.75	755.6	28	— 2.2	88	N	4	1.8			5			0	0		
New Orleans, La.			29.87	758.7	70	21.1	90	SW	4	1.8		8	Fog	S		0.07	1.8	Clearing	
Newport, R. I.																			
New York, N. Y.			29.82	757.4	29	— 1.7	89	NW			1		Fog			0.71	18.0	Fog	
Norfolk, Va.			29.86	758.4	61	16.1	94	W	6	2.7			10		SW	1.92	48.8		
North Platte, Neb.			29.92	760.0	18	— 7.8	84	SE	2	0.9			10			0	0		
Omaha, Neb.			30.37	771.4	6	—14.4	100	NW	3	1.3		0	0			0	0		
Oswego, N. Y.			29.95	760.7	13	—10.6	79	NW	8	3.6			10			0	0	Light snow	
Peck's Beach			29.80	756.9	37	2.8	100	N	4	1.8			Fog			0.27	6.7	Fog	
Pembina, D. T.			30.34	770.6	—25	—31.7		SW	4	1.8		0	2			0	0		
Philadelphia, Penn.			29.81	757.2	32	0.0	100	NW	4	1.8			Fog			0.54	13.7	Fog	
Pike's Peak, C. T.			29.54	750.3	—15	—26.1	100	NE	2	0.9		0	Fog			0.24	6.1		
Pittsburgh, Penn.			30.01	762.1	27	— 2.8	88	N	6	2.7			Fog			0.40	10.2	Fog	
Port Huron, Mich.			30.12	765.0	8	—13.3	89	NW	9	4			10			0.82	20.8		
Portland, Maine			29.76	755.9	16	— 8.9	83	N	17	7.6			10			0.63	16.0	Sleet	
Portland, Or.			29.89	759.2	41	5.0	91	SW	4	1.8			10			0.28	7.1	Light snow	
Punta Rassa, Fla.			30.15	765.8	69	20.6	87	E	4	1.8		0	5		E	0	0		
Rochester, N. Y.			29.96	761.0	14	—10.0	81	W	8	3.6			10			0.20	5.1	Light snow	
Salt Lake City, Utah			30.08	764.0	26	— 3.3	53	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.78	756.4	29	— 1.7	100	W	6	2.7			Fog			0.79	20.1	Fog	
San Diego, Cal.			30.28	769.1	44	6.7	67	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.21	767.3	50	10.0	79	SW	6	2.7			10			0	0		
Santa Fe, N. M.			29.62	752.3	9	—12.8	68	N	8	3.6		5	2	SW	NW	0.73	18.5		
Savannah, Georgia			30.01	762.2	67	19.4	79	S	6	2.7		8	0	SW	SW	0	0		
Shreveport, La.			30.01	762.2	43	6.1	75	NE	8	3.6			10		SE	0.03	0.8		
Springfield, Mass.			29.79	756.6	20	— 6.7	84	N	4	1.8			10			0.43	10.9	Sleet	
St. Louis, Mo.			30.30	769.6	19	— 7.2	84	N	8	3.6		0	5		N	0.10	2.5		
St. Marks, Fla.			30.00	762.0	67	19.4	94	S	10	4.5			10		S	0	0		
St. Paul, Minn.			30.26	768.9	3	—16.1	73	NW	4	1.8			10			0.01	0.3		
St. Paul's Island, Alaska			29.75	755.6	19	— 7.2	69	NE	26	11.6		0	10			0.01	0.3		
Squan Beach, N. J.			29.78	756.4	32	0.0	90	Calm	0	0			Fog			1.15	29.2	Fog	
Toledo, Ohio			30.07	763.8	13	—10.6	62	NW	12	5.4			10		SW	0.30	7.6		
Tybee Island, Ga.			30.03	762.8	63	17.2	88	S	8	3.6		8	0	NW		0	0		
Vicksburg, Miss.			30.03	762.7	50	10.0	77	N	3	1.3			10		N	0.80	20.3		
Virginia City, Mon.			29.56	750.8	14	10.0	83	SE	6	2.7			10			0	0		
Washington, D. C.			29.82	757.4	32	0.0	89	W	1	0.8			10		S	0.43	10.9		
Wilmington, N. C.			30.01	762.2	67	19.4	94	SW	16	7.2			10		SW	Blank	Blank	Light rain	
Wood's Hole, Mass.			29.12	739.6	29	— 1.7	78	NW	11	4.9			10			0.88	22.4		
Wytheville, Va.			29.67	753.6	49	9.4	93	W	2	0.9			10			0.85	21.6		
Yankton, D. T.			30.37	771.4	10	—12.2	79	S	1	0.4			10		S	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	78	25.6		NE	3	1.3		2	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	74	23.3		E				0	2		E	0	0		
Havana, Cuba, W. I.			29.90	759.4	70	21.1	81	SE	2	0.9		0	0			0	0		
Kingston, Jamaica, W. I.			30.20	769.4	79	26.1	94	SE	7	3.1		2	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	72	22.2	71	Calm	0	0		0	0			0	0		
St. Georges, Bermudas			30.30	769.6	63	17.2	70	S	23	10.3		0	5			0	0		
Honolulu, Oahu, S. I.			30.12	765.0	67	19.4		NE			4					0	0	Threatening	
Makawao, Maui, S. I.			30.08	764.0	62	16.7	83	E	10.8	4.8		0	0			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.05	763.3	— 7	—21.7	100	S	10	4.5		2	0	SW		0	0		C. Partridge.
Clifton, Jamaica, W. I.			30.15	765.8	63	17.2		N	3	1.3		2	2	N		0	0		John Delaney.
St. Johns, Newfoundland			30.53	775.4	8	—13.3	100	W			4	5	5			0.60	15.2		Leon M. Acuña.
St. Johns, Porto Rico, W. I.			30.18	766.6	75.6	24.2	71	SE				0	3			0.16	4.00		H. M. Redington.
Ellyria, Ohio	29.25	742.9			11	—11.7	80	NW	10	4.5		0	10			0.85	21.6	Threatening	G. C. Carpenter.
Indianola, Iowa	29.48	748.8			— 3	—19.4		NW				0	0			0	0		

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 3, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:18 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.77	756.2															Charnot.
Algiers			29.76	755.8	50.4	10.2	84	NW			1		10			0.276	7.0	Rain	Peter.
La Calle			29.74	755.3															Kuntz.
Tunis			29.74	755.3	59.7	15.4	55	WNW			3		8			0.071	1.8	Rainy	Jacques.
Sfax			29.73	755.2															Chauvey.
Salda			29.76	756.0	45.5	7.5		W			5		4			0.079	2.0		Grosjean.
Tebessa			29.74	755.5															Colin.
Geriville			29.77	756.1	40.1	4.5		NW			3		3			0	0		Bernadach.
Laghouat			29.76	756.0	52.7	11.5	27	NW			5		2			0	0		Poinsignon.
Biskra			29.76	755.7	54.7	12.6	73	NW			1		8			0.110	2.8		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.61	752.2	35.2	1.8	90	NE			3		10			0.138	3.5	Snow	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.93	760.3	22.5	— 5.3	65	NE			1		10			0	0		I. R. Observatory.
Eperies			29.82	757.3	23.4	— 4.8	79	N			4		10			0	0		Julius Mikolik.
Gratz			29.72	754.9	42.1	5.6	70	SSW			2.5		10			0.031	0.9		Andreas Rospini.
Hermannstadt			29.67	753.5	36.7	2.6	74	ESE			1		8			0	0		Prof. Reissenberger.
Kremsmünster			29.74	755.5	32.0	0.0	78	E			3		5			0	0		Prof. C. Wagner.
Lemberg			29.85	758.2	22.3	— 5.4	94	NE			3		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.76	755.9	30.9	— 0.6	96	N			1		0			0	0		Habasuda Daniel.
Pola			29.61	752.1	42.8	6.0	66	ENE			3		10			0	0		I. R. Hydrographic Of'ce
Szegedin			29.72	754.8	37.0	2.8	79	W			1		9			0	0		Karl Stancel.
Trieste			29.61	752.2	42.4	5.8	55	ENE			3		10					Rain	Prof. V. Farolfi.
Vienna			29.80	756.9	32.5	0.3	73	N			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.60	751.9			36.9	2.7	72	ESE			2		3		E				Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.23	767.8	37.6	3.1		SE	18	8.0			9			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.12	765.0	37	2.8		E			3		8						William McNeil.
Armagh Observatory			30.03	762.7	36.2	2.3		NE	9	4.0			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea			29.97	761.2	36.0	2.2		ENE			3		10					Fog.	The Liverpool Obs.
Bidston, Liverpool Obs			29.95	760.7	37.7	3.2		ENE			1		10						J. Drever.
Birr Castle			29.98	761.5	35.1	1.7		E			3		10						J. Mc. Landsborough.
Bradford																			
Bridgetown, (Barbadoes)																			
Bywell			29.91	759.7	37.5	3.1		NE			2		10					Clearing	H. Todd.
Cambridge Observatory			29 82	757.4	96	35.6		W			1		5						Sgt. D. E. Hunt
Cape Town. Cape Colony	29.86	758.4			70.9	21.6	54	NNW	5	2.2			1						The Royal Observatory
Cape Good Hope Obs.			29.93	760.2	32.0	0.0		NE					10						John McLaren.
Cardington			30.11	764.8	35.8	2.1		NE					10			0	0		T. Bell.
Carlisle			29.83	757.7	35.7	2.1		E			4		10						James Conroy.
Chatham																			
Cochyfoel Farm			29.90	759 4	77.9	25.5		SE			1		5						Sgt. W. F. Hopkins
Colombo, (Ceylon)			29.92	760.0	29.8	— 1.2		NE			5		10						R. E. Power.
Dartmoor			30.03	762.7	38	3.3		E			6		10						J. Mac Gowan, Jr.
Donaghadee			29.82	757.4	37	2.8		ENE			4		7						J. Costello.
Dover																			
Dublin			30.08	764.0	34.2	1.2		ENE					10					Snowy	G. Goldney.
Durham Observatory			29.99	761.7	36.8	2.7		ENE	2.6	1.2			10					Mist	Thomas Mackereth.
Eccles, (near Manchester)			29.85	758.2	38.4	3.6		ENE	20	8.9			9						The Falmouth Obs.
Falmouth Observatory			30.00	762.0	62.6	17.0		E			4		10						Pvt. G. Salmon.
Fort Napier, (Natal)			29.88	758.9	40	4.4		E			2		10						Queen's College.
Galway			29.97	761.2	57.4	14.1		W			5		5						Sgt. J. Brewster.
Gibraltar, (Mediterranean)			30.12	765.0	36.9	2.7		E			4		10						The Glasgow Obs.
Glasgow Observatory																			E. Toller.
Gloucester, the Asylum			29.93	760.2	34	1.1		E			6		7						G. T. Watson.
Great Yarmouth			29.87	758.7	35.3	1.8		ENE			4		10						The Royal Observatory
Greenwich Royal Obs			29.79	756.7	39	3.9		NE			3		7						Dr. S. E. Hoskins.
Guernsey			29.99	761.7	34.0	1.1		E					10						Moorside Observatory.
Halifax, Moorside Obs			30.24	768.1	12.6	—10.8		NE			3		1						Corp'l J. Y. Thompson
Halifax, (Nova Scotia)			29.80	756.9	44	1.1		E			4		3						W. B. Moyle.
Helston			29.94	760.5	37	2.8		E			4		10						John Tilston.
Holyhead																			
Hull Park			29.87	758.7	35.9	2.		NE	20	8.9			10					Mist	The Met. Office.
Kew Observatory			29.97	761.2	37	3.9		E			4		10					Mist	George Mitchell.
Kingstown																			
Lampeter			29.96	761.0	34.0	1.1		NE			3		10						William J. Harrison
Leicester			29.97	761 2	35.8	2.1		E					10						Dr. James Nicol.
Llandudno			29.83	757.7	63.0	17.2		SW			1		4						Sergt. E. Dowling.
Malta, (Mediterranean)																			
Markree																			
Marlborough College																			
Moville			30.20	767.1	39	3.9		ESE			1		8						William D. Penny.
Nairn			30.18	766.6	76.4	24.7		SE			3		5						Surgeon I. Jameson
Nassau, (Bahamas)			30.12	765.0	37	2.8		E			6		9						John Wm. Irvine.
North Shields			29.98	761.5	35.0	1.7		NE			3		10		NE				E. J. Lowe.
Nottingham																			J. R. Mann.
Osborne, New Barn Cottage			29.96	761.0	33.1	0.6		ENE			5-6		10						St. Mary's College.
Oscott, (Birmingham)			29.89	759.2	34	1.1		NE			2		10						Radcliffe Observatory.
Oxford, Radcliffe Obs			29.84	757.9	38	3.3		E			3		10						John Merrifield.
Plymouth																			
Portishead																			
Prospect, (Bermuda)			29.85	758.2	40	4.4		E			5		10					Sleet	W. Kennedy.
Roche's Point			29.80	759.2	36	2.2		E			2		7					Mist	John C. Walker.
Saint Ann's Head																			
St. Helier, Jersey																			Rev. Dr. Clouston.
Sandwick Manse, Orkneys			30.28	769.1	38.2	3.4		SE	22	9.8			3						F. Heard.
Scarboro'			30.07	763.8	35.1	1.7		E			6		10						W. H. Lyne.
Scutari, (Turkey)			29.55	750.6	44.0	6.7		NW			2		10					Light rain	W. F. Cooper.
Sheffield			30.02	762.5	36.2	2.3		ESE			2		10						
Sidmouth																			
Silloth Rectory			30.05	763.3	36.9	2.7		NE			6		7			0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.93	760 2	35.0	1.7		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.00	762.0	35.3	1.8		E			5		10					Sleet	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.15	765.8	40	4.4		ESE			4		1						John Smith.
Strathfield Turgiss			29.88	758.9	33.8	1.0		E			1		10						Charles H. Griffith.
Streatley Vicarage			29.88	758.9	36.3	2.4		ENE			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.28	769.1	40	4.4		SE			3		5						William Lawrence.
Taunton College																			
Thurso			30.24	768.1	40	4.4		ESE			3		8						John Trotter.
Truro. Royal Institution			29.77	756.1	43	6.1		NE			6		7						Royal Institution.
Valencia			29.83	757.7	41.3	5.2		ESE	27	12.1			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.83	757.7	37.2	2.9		NE			1		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.14	765.6	30.4	— 0.9	69	N			2		6						
Fanöe			30.20	767.1	33.6	0.9	68	E			4		1						
Godthaab, (Greenland)			29.60	751.8	7.3	—13.7		NE			6-7		10						
Stykkisholm, (Iceland)			29.88	758.8	39.9	4.4	80	SE			4		5						
Thorshavn, (Faröe)			30.27	768.8	40.8	4.9	70	SSE			4		8						
Vestervig			30.22	767.6	33.4	0.8	65	NNE			2		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.34	745.3	54.9	12.7	94						2						Normal School.
Alengon			29.77	756.2	34.5	1.4	96	NE			1		10			0	0		Normal School.
Amiens			29.72	754.9	45.3	7.4	87	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)			29.76	755.8	36.9	2.7	75	E	0.0	0.0			10		N	0.004	0.1		Beaumette Observatory.
Beauvais			29.78	756.5	37.8	3.2	73	ESE			2		10		SE	0	0		Normal School.
Besançon			29.78	756.4	37.9	3.3	90	S			2		10		SE	0	0		Normal School.
Bourges			29.74	755.3	39.9	4.4		NW			2		10		NW	0	0		Normal School.
Brest			29.71	754.6	44.1	6.7	65	NE			2		8		NE	0.039	1.0		Naval Observatory.
Caen			29.78	756.5	39.9	4.4	80	E			8		8		E	0	0		Normal School.
Carcassonne																			
Chartres			29.74	755.5	32.9	0.5		N			1		10			0	0		Normal School.
Chaumont			29.76	755.8	38.5	3.6		E			1		10		E	0	0		Normal School.
Le Mans			29.77	756.2	34.7	1.5	81	ENE			2		8		NE	0	0		Normal School.
Mirecourt			29.68	753.8	39.0	3.9		NNE			2		10		SSW	0	0		Normal School.
Orleans			29.75	755.6	34.2	1.2	81	NE			2		1		ENE	0	0		Normal School.
Paris			29.74	755.4	36.3	2.4		E			2		10			0	0	Foggy	National Observatory.
Parthenay			29.74	755.3	46.4	8.0	89	E			2		10			0	0		
La Roche sur Yon			29.74	755.4	40.3	4.6	80	N			2		10			0.012	0.3		Normal School.
Rouen			29.77	756.2	38.3	3.5	73	ENE			2		10			0	0		Normal School.
Saint Lo			29.76	756.0	37.4	3.0	79	NE			1		10		NE	0	0		Normal School.
Villefranche			29.68?	753.0?	41.2	5.1	97	SW			1		10		SW	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.86	758.5	70.3	21.3	55	NNE			4		1			0	0		Père Pascall.
Mont-Louis	24.44	620.9			33.4	0.8	61	SW	13.9	6.2			6		W	0	0		—, Falguère.
Montsouris (near Paris)			29.86	755.4	36.7	2.6	72	E	1.8	0.8			10		NE	0	0		Marié Davy.
Perpignan	29.60	751.7			50.9	10.5	44	NW	11.2	5.0			2		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.74	755.5	37.0	2.8	73	ENE			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.71	754.6	38.5	3.6	83	N			1		10		N	0	0		C. Marquet.
Versailles, (near Paris)			29.75	755.6	35.2	1.8	82	NE			1		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.71	754.5	36.5	2.5	67	NE			6		3			0	0		Prof. Hoh.
Berlin			30.09	764.2	31.1	— 0.5	58	E			2		0			0	0		Prof. Arndt.
Breslau			29.91	761.7	28.4	— 2.0	65	NE			2		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.73	755.1	38.8	3.8	48	NE			2.5		10			0	0		A. Lenz.
Cassel			29.91	759.7	31.1	— 0.5	86	E			2		10			0	0		Dr. H. Mohl.
Cologne			29.85	758.1	41.0	5.0	67	ESE			1		0			0	0		Dr. Gaithe.
Emden			29.19	766.7	37.6	3.1	54	E			4		0			0	0		Prof. Prestel.
Frankfort on the Main			29.94	760.4	36.5	2.5	59	N			4		1			0	0		Physical Society.
Friedrichshafen			29.76	755.7	35.6	2.0	64	SE					10			0.004	0.1		M. Wilhelm.
Hamburg			30.13	765.2	37.4	3.0	5[illegible]	ENE			4		3			0	0		W. Reinart.
Kiel			30.18	766.6	32.2	0.1	73	ENE			3		5			0	0		Prof. G. Karsten.
Königsberg			29.98	761.5	29.8	— 2.2	74	W			2		7			0	0		Prof. E. Luther.
Köslin			30.34	770.5	31.1	— 0.5		N[illegible]			2		8			0	0		Dr. T gert.
Leipsic			30.01	762.3	26.6	— 3.0	91	NNE			2		9			0	0		Prof. Bruhns.
Münster			29.9[illegible]	759.4	36.1	2.3	63	NE			3		0			0	0		Prof. E. Heis.
Posen			30.04	763.1	29.8	— 2.2	79	N			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.71	755.4	37.0	2.8	66	NE					8			[illegible]	0		Hartwig and Fulk.
Stuttgart			29.77	756.1	38.8	3.8	58	SE			9		9			0	0		Mr. Wurth.
Thorn			30.03	762.7	25.9	— 3.4	63	N			4		1			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.72	755.1	36.5	2.5	61	NE			7		5			0	0		Prof. Flesch.
Wustrow			30.17	766.2	30.7	— 0.7	81	ENE			4		5			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.71	754.6	38.8	3.8	80	ENE			2		10	W		Blank	Blank		
Mondovi			29.69	754.3	39.0	3.9	76	S			2		10			0	0	Snow	
Genoa			29.65	753.1	45.0	7.2	55	N	1.3	0.6			10	N		0	0		
Pavia			29.69	754.2	42.8	6.0	10	SW			1		10			0	0		
Verona			29.52	749.8	45.5	7.5	80	E			1		10			0	0		
Padua			29.63	752.6	43.0	6.1	68	N			4		10			0	0		
Parma																			
Bologna			29.55	750.6	37.2	2.9	81	N			6		10			0	0		
Livorno			29.57	751.1	42.3	5.7	77	ENE	0	0			10			0.035	0.9		
Urbino			29.67	753.6	34.3	1.3		NNE			2		10			0	0		
Ancona			29.64	752.9	37.0	2.8	86	NE			4		10			0.117	4.5	Rain	
Siena			29.64	752.9	36.0	2.2	95	NW	0	0			10			0.354	9.0	Snow	
Rome			29.66	753.1	49.3	9.6	65	NE	1.3	0.6			8			0	0		
Naples, O.U.			29.88	758.9	52.7	11.5	65	SW			2		8	NW		0.031	0.8		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.73	755.1	54.3	12.4	61	NNW	14.3	6.4			3			0	0		
Cosenza			20.77	756.2	49.5	9.7	75	NW			4		6	SW		0.157	4.0		
Catania, (Sicily)			29.86	758.7	57.7	14.3	67	W			2		0	W		0	0		
Riposto																			
Palermo			29.65	753.2	58.3	14.6	45	W			1		7	W		0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.87	758.8	34.9	1.6		ENE			5								
Groningen			29.99	761.7	24.3	1.3		ENE			5								
Helder			29.98	761.5	32.7	0.4		ENE			4								
Utrecht			29.89	759.2	37.2	2.9		ENE			5		2						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.23	768.9	30.6	— 0.8	56	NNW	0.9	0.4			5			0	0		
Christiania			30.21	767.4	23.5	— 4.7	72	WSW	1.3	0.6			0			0	0	Haze	
Tromsö			29.82	757.5	33.1	0.6	94	Calm			0		10			0.315	8.0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.60	751.7			51.4	10.8	62	SW	17.4	7.8			8						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.95	760.6	26.6	— 3.0	87	N	4	2			0						Astronomical Obs.
Wilna			29.94	760.4	22.3	— 5.4	75	Calm	0	0			10						Astronomical Obs.
Dorpat			29.75	755.6	27.7	— 2.4	85	WNW	9	4			8						Physical Cabinet.
St. Petersburg			29.58	751.2	28.6	— 1.9	75	NNW	11	5			10			Blank	Blank	Snow	Central Physical Obs.
Kieff			29.88	758.9	23.5	— 4.7	77	NNE	7	3			9					Fog	Physical Cabinet.
Nikolaiev			29.75	755.7	27.7	— 2.4	92	N	4	2			10						
Kertch			29.59	751.5	36.1	2.3	84	E	7.8	3.5			10						Lagorio.
Moscow			29.84	758.0	24.8	— 4.0	64	WSW	7.8	3.5			0						Meteorological Obs.
Lugan			29.75	755.7	28.6	— 1.9	72	E	16.8	7.5			8						Meteorological Obs.
Archangel			29.92	759.9	23.7	— 4.6	90	WNW	13	6			10						Ogorodnikof.
Tiflis			29.68	753.9	50.0	10.0	77	SE	7.8	3.5			9						Physical Obs.
Astrakhan			29.90	759.4	33.4	0.8	30	NE	4	2			4						Sebastianof.
Kasan			29.81	757.1	22.3	— 5.4	83	W	7.8	3.5			6						Physical Cabinet.
Orenburg			30.06	763.4	6.4	—14.2	92	NE	4	2			10						Tschernischef.
Ekaterinburg			29.93	760.3	16.2	— 8.8	75	W	10.1	4.5			7						Meteorological Obs.
Kasaly			29.61	752.2	29.3	— 1.5	82	Calm	0	0			0						Bobrof.
Tashkend			30.45	773.5	44.4	6.9	67	Calm	0	0			2						Michelson.
Barnaul			30.20	767.0	4.5	—15.3	81	S	4	2			3						Meteorological Obs.
Yeniseisk			29.69	754.2	8.6	—13.0	80	SW	10.1	4.5			10						Marks.
Irkutsk																			Usolzef.
Oorga			29.84	757.8	3.7	—15.7	93	Calm	0	0			0						Mossin.
Peking, (China)			29.93	760.2	38.1	3.4	47	Calm	0	0			2						Physical Observatory
Nertchinsk			29.71	754.5	4.6	—15.2	86	Calm	0	0			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.84	757.8	44.8	7.1	57	NW	6.7	3.0			7			Blank	Blank	Light rain	Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.3	39.2	4.0	55	N			2		1			0	0		Dr. Hildebrandsson.
Hernosand			29.98	761.6	42.8	6.0	47	N			4		1			0	0		
Upsala			30.09	764.2	32.4	0.2	80	NNW			2		2			0	0		
Stockholm			29.96	761.0	33.1	0.6	89	WNW			2		5			0	0		
Wisby			30.03	762.7	34.5	— 1.4	96	NNE			2		5			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.28	718.4			36.3	2.4	73	NNE			2		10			0	0		The Observatory.
Zurich	28.06	712.8			34.5	1.4	90	NW			1		10			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —7.0mm.; Thermometer, —3°6. C.; Relative Humidity, +8 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.73	755.1	63.3	17.4	76	SW			3		8			Blank	Blank	Rain	
Constantinople			29.53	750.1	43.6	6.2	91	NNW	16.8	7.5			10		NW	0	0		
Fao, (Persian Gulf)			30.08	764.0	52.2	11.2		SE			3		10						
Salonica			29.58	751.2	49.3	9.6		NW			1		3						
Valona			29.64	752.9	58.6	14.8		SW			3		3						
Varna			29.72	755.0	33.8	1.0		N			2		10						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.46	773.7	3	—16.1		Calm	0	0		2	0	SW		0	0		
Cape Roziere, Quebec			30.13	765.3	18	— 7.8	84	NW	4	1.8		2	2	NW	NW	0	0		
Chatham, N. B.			30.43	772.9	0	—12.8	89	W	6	2.7		5	5	N	N	0.45	11.4		
Charlottetown, P. E. Island			30.30	769.6	8	—13.3	98	N	14	6.2		8	0	NW		0.300	7.62		
Father Point, Quebec			30.36	771.1	1	- 17.2	63	NE	18	8 0		5	Haze	SW		0.03	0.8		
Fort Garry, Manitoba			30.06	763.5	8	—16.1	90	S	20	8.9		0	Haze			0	0		
Halifax, N. S.			30.15	765.8	12	—11 1	86	N	8	3.6		2	0	N		0.06	1.5		
Kingston, Ontario			30.43	772.9	4	—15.6	79	NE	1	0.4		2	0	NW		0	0		
Montreal, Quebec			30.41	772.4	0	—12.8	97	NE	7	3.1			Fog			0	0	Fog	
Ottawa, Ontario			30.41	772.4	2	—16.7	57	NW	6	2.7		2	0	NW		0	0		
Parry Sound, Ontario			30.45	773.4	—16	—26.7	46	NE	13	5.8		0	0			0	0		
Port Dover, Ontario			30.30	769.6	3	—16.1	100	NE	10	4.5		8	0	W		0	0		
Port Stanley, Ontario			30.25	768 3	5	—15.0	82	NE	15	6.7		5	2	W	W	0	0		
Quebec, Quebec			30.42	772.7	11	—11.7	80	Calm	0	0			10		Calm	0.30	7.6		
Saugeen, Ontario			30.35	770.9	— 2	—18.9	93	NE	3	1.3		5	0	W		0.01	0.3		
Stayner			30.37	771.4	— 2	—18.9	83	Calm	0	0		1	0			0	0		
Sydney, C. B.			30.15	765.8	12	—11.1	88	NE	6	2.7		2	0	W		0	0		
Toronto, Ontario			30.34	770.6	3	—16.1	89	N	6	2.7		0	0	W		0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.40	772.1	13	−10.6	81	Calm	0	0			10		NE	0	0		
Alpena, Mich.			30.35	770.9	4	−15.6	74	E	8	3.6		5	2	E		0	0	Light rain	
Atlantic City, N. J.			30.25	768.3	28	− 2.2	88	NE	31	13.9			10		SW	0	0		
Augusta, Ga.			29.81	757.	65	18.3	80	S	10	4.5			10		S	0.57	14.5		
Baltimore, Md.			30.22	767.6	31	− 0.6	100	NE	6	2.7			10			Blank	Blank	Sleet	
Barnegat, N. J.			30.17	766.4	33	0.6	100	N	22	9.8			10		N	0.33	8.4	Light rain	
Benton, Montana			29.80	756.1	24	− 4.4	74	SW	12	5.4		0	0			0	0		
Bismarck, Dakota			29.95	760.7	0	−17.8	69	S	4	1.8		Haze	5			0.04	1.0		
Boston, Mass.			30.36	771.1	20	− 6.7	85	NW	9	4.0			10			0.01	0.3	Threatening	
Breckenridge, Minn.			30.28	769.1	− 8	−22.2	88	SE	10	4.5		0	0			0	0		
Buffalo, N. Y.			30.32	770.1	9	−12.8	78	NE	4	1.8		8	Sm'e	SW	W	0	0		
Burlington, Vt.			30.40	772.1	12	−11.1	61	N	3	1.3		0	5			0	0		
Cairo, Ill.			29.93	760.2	24	− 4.4	87	W	16	7.2			10		NW	0.29	7.4	Light snow	
Cape Hatteras, N. C.			29.98	761.5	59	15.0	87	NE	12	5.4			10		SW	0.08	2.0		
Cape Henry, Va.			30.10	764.5	38	3.3	90	NE	30	13.4			10			Blank	Blank	Light rain	
Cape May, N. J.			30.20	767.1	31	− 0.6	89	NE	16	7.2			10			Blank	Blank	Sleet	
Charleston, S. C.			29.96	761.0	64	17.8	88	SW	16	7.2		5	5	SW	S	0.30	7.6		
Cheyenne, W. T.			29.71	754.6	27	− 2.8	59	SW	4	1.8			10			0	0		
Chicago, Ill.			29.89	759.2	15	− 9.4	82	NE	21	9.4			10			Blank	Blank	Light snow	
Cincinnati, Ohio			29.55	750.6	30	− 1.1	78	E	15	6.7			5		E	0.10	2.5	Sleet	
Cleveland, Ohio			30.04	763.0	11	−11.7	90	NE	8	3.6			10			0.01	0.3	Threatening	
Colorado Springs, Col.			29.68	753.9	21	6.1	85	Calm	0	0		0	5			0	0		
Corsicana, Texas			30.25	768.3	25	− 3.9	83	NE	7	3.1		0	0			0	0		
Davenport, Iowa			30.12	765.0	11	−11.7	90	NE	16	7.2			10		N	0	0		
Denver, Col.			29.79	756.7	20	− 6.7	70	Calm	0	0			10			0	0		
Detroit, Mich.			30.18	766.6	4	−16.6	74	NE	15	6.7			10		NE	0	0		
Dodge City, Kansas			29.79	756.7	28	− 2.2	77	SE	6	2.7		0	0			0	0		
Dubuque, Iowa			30.21	767.3	7	−13.9	77	N	8	3.6			10		NW	0	0		
Duluth, Minn.			30.40	772.1	− 5	−20.6	63	NE	4	1.8		0	2			0	0		
Eastport, Me.			30.34	770.6	13	−10.6	62	NE	12	5.4		2	0	NE		0.02	0.5		
Erie, Penn.			30.20	767.1	9	−12.8	78	N	8	3.6		2	2		SW	0	0		
Escanaba, Mich.			30.43	772.9	16	−26.7	39	N	12	5.4		0	0			0	0		
Fort Gibson, I. T.			30.20	767.1	20	− 6.7	85	NW	6	2.7		0	Haze			0.04	1.0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.02	762.5	11	−11.7	70	SE	14	6.3		5	0	SW		0	0		
Galveston, Texas			30.20	767.1	38	3.3	63	N	32	14.3		0	0			0.11	2.8		
Grand Haven, Mich.			30.16	766.1	8	−13.3	66	NE	14	6.3			10			0	0		
Indianapolis, Ind.			29.64	752.8	20	− 6.7	85	N	12	5.4			10		N	0.19	4.8	Sleet	
Indianola, Texas			30.29	769.4	40	4.4	56	N	12	5.4		0	0			0	0		
Jacksonville, Fla.			30.01	762.2	69	20.6	84	SW	6	2.7		5	0	SW		0	0		
Keokuk, Iowa			30.07	763.8	13	−10.6	81	N	10	4.5			10			0.30	7.6	Light snow	
Key West, Fla.			30.11	764.8	75	23.9	81	S	5	2.2		Haze	Haze			0	0		
Kittyhawk, N. C.			30.03	762.7	47	8.3	85	NE					10			0	0		
Knoxville, Tenn.			29.61	752.1	51	10.6	96	SW	8	3.6			10		SW	0.05	26.7		
La Crosse, Wis.			30.32	770.1	−10	−23.3	54	N	7	3.1		Haze	Haze			0	0		
Leavenworth, Kan.			30.20	767.1	14	−10.0	83	N	3	1.3		0	0			0	0		
Lexington, Ky.			29.57	751.1	34	1.1	89	S	12	5.4			10		S	0	0	Light rain	
Long Branch, N. J.			30.32	770.1	23	− 5.0	86	N	22	9.8			10			0	0	Sleet	
Louisville, Ky.			29.57	750.1	32	0.0	90	Calm	0	0			10			0.03	0.8	Sleet	
Lynchburg, Va.			30.08	764.0	35	1.7	90	NE	8	3.6			10		NE	0.85	21.6	Heavy rain	
Malone, N. Y.																			
Marquette, Mich.			30.16	773.7	− 9	−22.8	56	W	8	3.6		0	0			0	0		
Memphis, Tenn.			30.03	762.7	30	− 1.1	79	Calm	0	0			10			0.56	14.2		
Milwaukee, Wisconsin			30.18	766.6	9	−12.8	78	NE	20	8.9			10			0	0		
Mobile, Ala.			30.04	763.0	50	10.0	71	NW	10	4.5		2	8	W	NW	0.81	20.6		
Montgomery, Ala.			29.99	761.7	50	10.0	75	W	18	8.0		2	8	SW	NW	2.40	70.0		
Morgantown, W. Virginia			29.92	759.9	34	1.1	90	NE	10	4.5			10			0.19	4.8	Light rain	
Mt. Washington, N. H.			30.01	762.2	4	−15.6	74	N	16	7.2		0	5		N	0	0		
Nashville, Tenn.			29.82	757.4	38	3.3	71	SW	20	8.9		10	0	SW		0.44	11.2		
New Haven, Conn.			30.36	771.1	19	− 7.2	69	N	14	6.2			10		SE	0	0		
New London, Conn.			30.37	771.4	22	− 5.6	79	N	9	4.0			10		W	0	0		
New Orleans, La.			30.09	764.3	49	9.4	51	NW	16	7.2		5	0			0.07	11.8		
Newport, R. I.																			
New York, N. Y.			30.34	770.6	22	− 5.6	85	NE	15	6.7			10			0	0		
Norfolk, Va.			30.10	764.5	36	2.2	85	NE	17	7.6			10		NE	0.04	1.0		
North Platte, Neb.			29.69	754.1	16	− 8.9	66	SE	6	2.7		0	Haze			0	0		
Omaha, Neb.			30.28	769.1	− 1	−18.3	100	N	6	2.7		0	0			0	0		
Oswego, N. Y.			30.41	772.4	11	−17.7	78	S	1	0.4			10		S	0.10	2.8		
Peck's Beach			30.24	768.1	29	− 2.7	89	E	20	8.9			10			0.04	1.0	Light rain	
Pembina, D. T.			30.26	768.6	− 3	−19.4	66	SE	24	10.7		0	5			0	0		
Philadelphia, Penn.			30.28	769.1	24	− 4.4	87	NE	20	8.9			10		NE	0.02	0.5	Sleet	
Pike's Peak, C. T.			29.62	752.3	0	−17.8	100	SW	20	8.9			10			0.02	0.5	Light snow	
Pittsburgh, Penn.			30.04	765.0	24	− 4.4	87	E	7	3.1			10			Blank	Blank	Sleet	
Port Huron, Mich.			30.24	768.6	1	−17.2	85	E	12	5.4			10			0	0		
Portland, Maine			30.38	771.6	18	− 7.8	68	N	8	3.6		5	Haze			0.06	1.5		
Portland, Or.			30.01	762.2	39	3.9	90	S	6	2.7			10			0.15	3.8		
Punta Rassa, Fla.			30.14	765.5	75	23.9	90	S	13	5.8		5	Sm'e	SE		0	0		
Rochester, N. Y.			30.36	771.1	11	−11.7	79	NW	1	0.4			10		W	0	0		
Salt Lake City, Utah			29.77	756.1	35	1.7	61	NE	2	0.9			10			0	0		
Sandy Hook, N. J.			30.32	770.1	22	− 5.6	93	NE	18	8.0			10		NE	0	0	Hail	
San Diego, Cal.			30.05	763.3	52	11.1	64	NW	20	8.9			10		NW	0.30	7.6	Threatening	
San Francisco, Cal.			30.16	766.1	45	7.2	76	NW	8	3.6		0	0			0.45	11.4		
Santa Fe, N. M.			29.51	749.5	9	−12.8	58	E	4	1.8		2	0	SW		0	0		
Savannah, Georgia			29.95	760.7	67	19.4	79	S	16	7.2		10	0	SW		0	0		
Shreveport, La.			30.22	767.6	31	− 0.6	79	NW	12	5.4			10			0.31	7.9		
Springfield, Mass.			30.40	772.1	19	− 7.2	78	N	4	1.8			10			0.01	0.3	Threatening	
St. Louis, Mo.			29.99	761.7	17	− 8.3	100	N	16	7.2			10		N	0.35	8.9	Light snow	
St. Marks, Fla.			29.95	760.7	68	20.0	94	S	21	9.4			10		SW	Blank	Blank	Light rain	
St. Paul, Minn.			30.27	768.8	−12	−24.4	75	NE	1	0.4		0	Haze			0	0		
St. Paul's Island, Alaska			30.13	765.3	22	− 5.6	72	ENE	18	8.0		0	8			0.01	0.3		
Squan Beach, N. J.			30.29	769.4	24	− 4.4	75	N	14	6.2			10		N	Blank	Blank	Sleet	
Toledo, Ohio			30.01	762.2	7	−13.9	77	NE	30	13.4			10		NE	0	0		
Tybee Island, Ga.			29.98	761.5	64	17.8	88	S	12	5.4		5	5	S		0	0		
Vicksburg, Miss.			30.18	766.6	38	3.3	71	NW	12	5.4			10		NW	0.45	11.4		
Virginia City, Mon.			29.47	748.5	17	− 8.3	83	SE	4	1.8			10			0	0		
Washington, D. C.			30.21	767.3	31	− 0.6	89	NE	8	3.6			10		NE	0.13	3.3	Sleet	
Wilmington, N. C.			29.96	761.0	61	16.1	94	SE	9	4.0			10		SW	0	0		
Wood's Hole, Mass.			30.34	770.6	22	− 5.6	72	NW	12	5.4			10			0	0		
Wytheville, Va.			29.68	753.9	36	2.2	90	E	8	3.6			10			1.10	27.9		
Yankton, D. T.			30.34	770.6	− 9	−22.8	56	NE	1	0.4		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	80	26.7		N	5	2.2		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.04	763.0	71	21.7		NE				0	2		NE	1.0	25.4		
Havana, Cuba, W. I.			29.92	760.0	77	25.0	86	S	4	1.8		5	0	SE		0	0		
Kingston, Jamaica, W. I.			30.31	769.9	78	25.6	97	SE	10	4.5		2	0	SE		0	0		
St. Thomas, W. I.																			
Santiago de Cuba, , W. I.			29.95	760.7	74	23.3	76	NW	4	1.8		0	2		WSW	0	0		
St. Georges, Bermudas			30.31	769.9	67	19.4	89	SW	22	9.8		2	2	NNW		0.05	1.3		
Honolulu, Oahu, S. I.			30.18	766.6	65	18.3		NE			3					0	0	Threatening	
Makawao, Maui, S. I.			30.10	764.5	63	17.2	78	SE	10.8	4.8		5	6	SE	E	0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.74	755.4	9	—12.8	100	W	8	3.6			1			0.03	0.7		
Clifton, Jamaica, W. I.			30.13	765.3	66	18.9		N	2	0.9			5			0	0		C. Partridge.
St. Johns, Newfoundland			29.90	759.4	13	—10.6	91	NE					10			0.10	2.5	Snowing	John Delaney.
St. Johns Porto Rico. W. I.			30.19	766.9	73.0	22.8	80	S			2	2	4			0.008	0.20		Leon M. Acuña.
Ellyria, Ohio	29.17	740.9			11	—11.7	79	W	12	5.4		0	10			0.83	21.1	Snowing	H. M. Redington.
Indianola, Iowa	29.34	745.2			4	—15.6		NW				0	0			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 4, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	764.5															Charnot.
Algiers			30.05	763.3	50.9	10.5	36	W			1		1			0.106	2.7		Peter.
La Calle			30.03	762.8															Kuntz.
Tunis			30.01	762.3	59.2	15.1	50	NW			4		5			0.067	1.7		Jacques.
Sfax			30.03	763.8															Chauvey.
Saïda			30.10	764.5	57.6	14.2		W			4		1			0	0		Grosjean.
Tebessa			30.07	763.7															Colin.
Geriville			30.11	764.7	52.0	11.1		S			2		0			0	0		Bernadach.
Laghouat			30.09	764.3	55.4	13.0	35	NW			2		2			0	0		Poinsignon.
Biskra			30.08	764.0	61.2	16.2	40	NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.89	759.3	34.5	1.4	72	NE			3		3			0.012	0.3		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.97	761.9	25.7	— 3.5	69	W			2		10			0	0		I. R. Observatory.
Eperies			29.88	759.0	25.9	— 3.4	87	N			4		10			0	0		Julius Mikolik.
Gratz			29.82	757.4	36.5	2.5	76	SSW			2.5		0			0	0		Andreas Rospini.
Hermannstadt			29.69	754.2	33.1	0.6	85	NNE			1		10			0.083	2.10		Prof. Reissenberger.
Kremsmünster			30.00	761.9	30.6	— 0.8	66	Calm			0		0			0	0		Prof. C. Wagner.
Lemberg			29.87	758.8	23.0	— 5.1	86	NE			4		10			0.008	0.2		Dr. T. Stanecki.
Nyiregyhaza			29.80	757.0	28.4	— 2.0	76	N			4		2			0	0		Habzsuda Daniel.
Pola			29.78	756.5	46.1	7.3	58	E			1		10			0.003	0.09		I. R. Hydrographic Office
Szegedin			29.80	756.9	30.2	— 1.0	88	E			2		10			0.028	0.70		Karl Stancel.
Trieste			29.80	756.8	44.8	7.1	56	E			2		1						Prof. V. Farolfi.
Vienna			30.00	762.1	26.4	— 3.1	74	NW			2		10			Blank	Blank		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.82	757.4			37.6	3.1	70	E			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low. r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.19	766.8	39.0	3.9		SE	12	5.4			3			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.08	764.0	42	5.6		E	4	1.8			1						William McNeil.
Armagh Observatory			30.01	762.2	35.0	1.7		E	19	8.5			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.04	763.0	34.3	1.3		E			4		10						The Liverpool Obs.
Birr Castle			29.91	759.7	37.8	3.2		ESE			1–3		10						J. Dreyer.
Bradford			30.04	763.0	35.0	1.7		E			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.06	763.5	37.8	3.2		ESE			1		7						H. Todd.
Cape Town, Cape Colony			29.87	758.7	75	23.9		NW			3		1						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.91	759 7			68.0	20.0	53	SSW	24	10.7			1						The Royal Observatory
Cardington			30.02	762.5	37.0	2.8		E					9						John McLaren.
Carlisle			30.10	764.5	40.0	4.4		SE					1			0	0		T Bell.
Chatham			30.10	764.5	38.2	3.4		N			1		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.92	760.0	76.7	24.8		NE			1		3						Sgt. W. F. Hopkins
Dartmoor			29.96	761.0	32.0	0.0		E			2		10					Fog	R. E. Power.
Donaghadee			30.06	763.5	39	3.9		SE			5		7						J. Mac Gowan, Jr.
Dover			30.00	762.0	39	3.9		E			3		2						J. Costello.
Dublin																			
Durham Observatory			30.10	764.5	38.9	3.2		ESE					2						G. Goldney.
Eccles, (near Manchester)			30.06	763.5	35.2	1.8		ESE	3.6	1.5			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.86	758.4	42.0	5.6		SE	25	11.2			10						The Falmouth Obs.
Fort Napier, (Natal)			29.80	756.9	77.8	25.4		E			3		0						Pvt. G. Salmon.
Galway			29.80	756.9	41	5.0		E			3		10						Queen's College.
Gibraltar, (Mediterranean)			30.01	762.2	58.8	14.9		WSW			5		10						Sgt. J. Brewster.
Glasgow Observatory			30.10	764.5	37.8	3.2		E			4		3						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.08	764.0	36	2.2		E			4		2						G. T. Watson.
Greenwich Royal Obs			30.00	762.0	39.4	4.1		E			2		10						The Royal Observatory.
Guernsey			29.90	759.4	39.5	4.2		ESE			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.06	763.5	33.4	0.8		ESE					10						Moorside Observatory
Halifax, (Nova Scotia)			30.25	768.3	14.7	−9.6		NE			2		10						Corp'l J. Y. Thompson.
Helston			29.81	757.2	44	6.7					3		10					Mist	W. B. Moyle.
Holyhead			29.96	761.0	39	3.9		E			5		3						John Tilston.
Hull Park																			
Kew Observatory			30.01	762.2	38.9	3.8		E	19	8.5			9					Mist	The Met. Office.
Kingstown			29.99	761.7	38	3.3		ESE			1		10						George Mitchell.
Lampeter																			
Leicester			30.06	763.5	34.1	1.2		E			1		10						William J. Harrison
Llandudno			30.04	763.0	34.7	1.5		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.93	760.2	58.0	14.4		NE			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.17	766.3	40	4.4		ESE			1		5						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	75.0	23.9		S			1		5						Surgeon I. Jameson
North Shields			30.14	765.5	39	3.9		SE			3		4						John Wm. Irvine.
Nottingham			30.08	764.0	34.7	1.5		ESE			2		10		E				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.03	762.7	34.2	1.2		ENE			3		10						St. Mary's College.
Oxford, Radcliffe Obs			30.08	764.0	38	3.3		E			2		10						Radcliffe Observatory.
Plymouth			29.88	758.9	40	4.4		SE			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.82	757.4	43	6.1		SE			5		10					Rainy	W. Kennedy.
Saint Ann's Head			29.93	760.2	36	2.2		ESE			5		10					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.21	767.3	38.9	4.4		SE	25	11.2			1						Rev. Dr. Clouston.
Scarboro'			30.11	764.8	36.0	2.2		ESE			5		4						F. Heard.
Scutari, (Turkey)			29.80	756.9	42.4	5.8		N			1		10					Snowy	W. H. Lyne.
Sheffield			30.07	763.8	36.4	2.4		SE			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.07	763.8	41.7	5.4		NE			5		2			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.06	763.5	40.7	4.8		ENE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			30.06	763.5	33.7	0.9		E			4		10						Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.08	764.0	39	3.9		SE			4		0						John Smith.
Strathfield Turgiss			29.99	761.7	36.3	2.4		SE			1		10						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.16	766.1	42	5.6		SE			2		8						William Lawrence.
Taunton College																			
Thurso			30.19	766.8	42	5.6		SE			3		4						John Trotter.
Truro, Royal Institution			29.79	756.7	43	6.1		E			6		10						Royal Institution.
Valencia			29.75	755.6	40.8	4.9		E	25	11.2			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.99	761.7	39.4	4.1		ENE			1		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.18	766.6	35.4	1.9	65	N			2		9						
Fanöe			30.21	767.4	40.6	4.8	56	E			2		1						
Godthaab, (Greenland)			29.69	754.2	5.7	−14.6		N			2		10						
Stykkisholm, (Iceland)			29.81	757.2	41.2	5.1	82	SE			6		8					Rain	
Thorshavn, (Faröe)			30.21	767.4	41.9	5.5	62	SSE			4		6						
Vestervig			30.21	767.2	34.5	1.4	96	ESE			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			29.80	756.8	55.4	13.0	97						5						Normal School.
Alengon			29.93	760.2	42.8	6.0	69	S			1		2			0	0		Normal School.
Amiens			29.94	760.4	41.7	5.4	81	E			3		2		E	0	0		Normal School.
Beaumette, (near Angers)			29.87	758.7	45.5	7.5	53	SE	6.5	2.9			5		S	0	0		Beaumette Observatory.
Beauvais			29.99	761.8	41.0	5.5	69	SE			1		10		SE	0	0		Normal School.
Besançon			29.98	761.4	42.1	5.6	73	NE			3		10		SE	0	0		Normal School.
Bourges			29.91	759.8	41.0	5.0		E			2		8		E	0	0		Normal School.
Brest			29.77	756.2	46.0	8.1	61	E			3		1		SSE	0	0		Naval Observatory.
Caen			29.94	760.5	42.3	5.7	71	SE			2		8		SE	0	0		Normal School.
Carcassonne																			
Chartres			29.95	760.8	39.0	3.9		S			1		10			0	0		Normal School.
Chaumont			29.97	761.2	41.5	5.3		SE			2		10		SE	0.071	1.8		Normal School.
Le Mans			29.96	761.0	41.2	5.1	63	S			2		8		S	0	0		Normal School.
Mirecourt			29.97	761.1	37.8	3.2		NE			2		10		SSW	0	0		Normal School.
Orleans			29.96	760.9	41.7	5.4	66	E			2		1		NNE	0	0		Normal School.
Paris			29.96	761.0	39.7	4.3		ESE			2		8			0	0		National Observatory.
Parthenay			29.91	759.8	48.0	8.9	73	SE			2		2		SE	0	0		
La Roche sur Yon			29.87	758.8	43.9	6.6	64	NW			2		5		NW	0	0		Normal School.
Rouen			29.97	761.1	41.7	5.4	63	SE			2		10		SE	0	0		Normal School.
Saint Lo			29.93	760.1	40.6	4.8	91	SE			2		10		SE	0	0		Normal School.
Villefranche			30.01	762.3	46.6	8.1	98	SE			2		10			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)			29.88	758.9	70.3	21.3	58	NNE			4		1			0	0		Père Pascall.
Mont-Louis	24.59	624.6			32.0	0.0	70	SSW	18.6	8.3			5		WSW	0.016	0.4		—. Falguère.
Montsouris (near Paris)			29.96	760.9	40.6	4.8	6	ESE	0.7	0.3			10		ESE	0	0		Marié Davy.
Perpignan	29.75	755.6			50.4	10.2	70	NW	5.6	2.5			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.97	761.1	41.4	5.2	58	SE			1		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.91	759.8	44.2	6.8	65	ESE			2		5		S	0	0		C. Marquet.
Versailles, (near Paris)			29.96	760.9	39.9	4.4	70	SE			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.04	762.9	38.9	1.6	59	NE			5		2			0	0		Prof. Hoh.
Berlin			30.19	766.9	32.2	0.1	87	N			1		8			0	0		Prof. Arndt.
Breslau			30.17	764.4	35.6	— 2.0	87	NNW			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.02	762.6	36.3	2.4	56	NE			3		0			0	0		A. Lenz.
Cassel			30.06	763.5	38.3	3.5	79	E			2		0			0	0		Dr. H. Mohl.
Cologne			30.07	763.8	35.4	1.9	80	SE			3		0			0	0		Dr. Gaithe.
Emden			30.03	778.0	38.3	3.5	61	E			1		0			0	0		Prof. Prestel.
Frankfort on the Main			30.17	766.2	36.0	2.7	47	E			2		0			0	0		Physical Society.
Friedrichshafen			29.98	761.6	36.5	2.5	74	NE					6			0	0		M. Wilhelm.
Hamburg			30.21	767.2	42.1	5.6	47	NE			2		3			0	0		W. Reinart.
Kiel			30.22	767.5	37.0	2.8	70	NE			2		2			0	0		Prof. G. Karsten.
Königsberg			30.10	764.6	31.1	— 0.5	68	N			2		0			0	0		Prof. E. Luther.
Köslin			30.38	771.6	34.2	1.2		N			2		8			0	0		Dr. T gert.
Leipsic			30.21	767.2	29.5	— 6.4	97	SSE			2		10			0	0	Fog	Prof. Bruhns.
Münster			30.09	764.3	39.0	3.9	77	NE			3		0			0	0		Prof. E. Heis.
Posen			30.09	764.2	32.7	0.4	76	N			2		0			0	0		Dr. Magelver.
Strassburg, (in Alsace)			30.00	762.1	35.1	1.7	71	N					1			0	0		Hartwig and Fulk.
Stuttgart			30.04	763.1	35.6	2.0	58	NE					0			0	0		Mr. Wurth.
Thorn			30.09	764.4	30.9	— 0.6	77	NE			4		1			0	0		Dr. H enbalg.
Treves, (Trier)			29.96	760.9	37.6	3.1	52	NE			5		0			0	0		Prof. Blesch.
Wustrow			30.21	767.2	33.1	0.6	80	NNE			3		0			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Moncalieri			29.87	758.8	39.7	4.3	75	ESE			2		2			0	0		
Mondovi			29.85	758.2	37.9	3.3	76	NW			2		0			0	0		
Genoa			29.82	757.4	50.7	10.4	46	SW	8.1	3.6			2	NW		0	0		
Savia			29.85	758.2	39.7	4.3	74	SW			1		0			0	0		
Verona			29.78	756.5	46.0	7.8	83	NE			1		0			0	0		
Padua			29.78	756.5	44.1	6.7	63	WSW	3.1	1.4			10	NNE		Blank	Blank		
Parma																			
Bologna			29.84	758.0	44.1	6.7	46	SSW			4		4	S		0	0		
Livorno			29.82	757.4	49.1	9.5	59	NNW	0	0			8			0	0		
Urbino			29.85	758.3	3 .1	1.8		NE			2		10			0.276	7.0		
Ancona			29.83	757.6	38.8	3.8	97	NW			2		10			Blank	Blank	Rainy	
Siena			29.85	758.1	39.2	4.0	81	NNW	0	0			10	N		0	0		
Rome			29.81	757.1	49.1	9.5	76	WSW	3.1	1.4			8	W		0.031	0.8		
Naples, O.U.			29.80	756.8	52.9	11.6	55	NW			2		8	NW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.74	755.1	51.1	10.6	92	NNE	9.4	4.2			8			0	0		
Cosenza			29.80	756.9	51.6	10.9	60	NW			2		10			0.504	12.8	Rain	
Catania, (Sicily)			29.84	757.8	55.8	13.2	58	SSE			1		0	W		0	0		
Hiposto																			
Palermo			29.81	757.2	53.6	12.0	61	W			2		8	W		0.063	1.6		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.7	37.4	3.0		E			3								
Groningen			30.09	764.2	34.7	1.5		E			2								
Helder			30.11	764.9	32.4	0.2		E			3								
Utrecht			30.04	762.9	41.2	5.1		ENE			4		2						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.26	768.6	33.1	0.6	57	Calm	0	0			0			0	0		
Christiania			30.21	767.3	31.6	— 0.2	66		1.3	0.6			1			0	0		
Tromsö			29.86	758.5	36.0	2.2	94	N			2		5			0.268	6.8		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.56	750.9			52.7	11.5	89	SW	9.8	4.4			10			Blank	Blank		

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.03	762.7	27.9	— 2.3	98	NE	9	4			5						Astronomical Obs.
Wilna			30.[illegible]1	762.2	27.1	— 2.7	77	NE	4	2			10						Astronomical Obs.
Dorpat			29.94	760.5	30.4	— 0.9	67	WNW	11	5			1						Physical Cabinet.
St. Petersburg			29.72	754.9	26.4	— 3.1	82	W	9	4			4						Central Physical Obs.
Kieff			29.89	759.1	25.3	— 3.7	62	N	4	2			1						Physical Cabinet.
Nikolaiev			29.82	757.5	30.9	— 0.6	83	N	4	2			10						
Kertch			29.61	752.2	32.0	0.0	83	NNE	10.1	4.5			10						Lagorio.
Moscow			29.78	756.3	19.0	— 7.2	75	NW	7.8	3.5			10						Meteorological Obs.
Lugan			29.63	752.5	28.4	— 2.0	68	NE	7.8	3.5			9						Meteorological Obs.
Archangel			29.78	756.[illegible]	— 2.2	—19.0	62	ESE	10.1	4.5			10						Ogorodnikof.
Tiflis			29.49	749.1	48.9	9.4	57	N	31	14			9						Physical Obs.
Astrakhan			29.71	754.7	35.4	1.9	46	ENE	4	2			10						Sebastianof.
Kasan			29.54	750.2	16.7	— 8.5	91	WSW	7.8	3.5			10						Physical Cabinet.
Orenburg			29.83	757.7	5.0	—15.0	100	SW	4	2			5						Tschernischef.
Ekaterinburg			29.61	752.2	15.4	— 9.2	81	SW	16.8	7.5			10						Meteorological Obs.
Kasaly			29.61	752.0	41.4	5.2	89	Calm	0	0			0						Bobrof.
Tashkend			30.32	770.1	52.9	11.6	54	Calm	0	0			9						Michelson.
Barnaul			29.76	756.0	6.8	—14.0	71	NE	4	2			4						Meteorological Obs.
Yeniseisk			29.83	757.7	2.5	—16.4	75	Calm	0	0			0						Varks.
Irkutsk																			Usolzef.
Oorga			30.05	763.2	6.1	—14.4	84	Calm	0	0			0						Mossin.
Peking, (China)			29.85	758.2	39.6	4.2	58	Calm	0	0			0						Physical Observatory
Nertchinsk			29.56	750.8	18.0	— 7.8	69	NW	7.8	3.5			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.88	759.0	45.0	7.2	92	S	9.6	4.3			10			0.114	2.9	Rain	Royal Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.91	759.8	41.0	5.0	51	NNW			7		1			0	0		
Hernosand			29.93	761.3	42.8	6.0	70	NNW			4		2			0	0		
Upsala			30.07	763.7	35.1	1.7	70	NW			2		0		W				Dr. Hildebrandsson.
Stockholm			30.05	763.2	36.7	2.6	65	NW			4		0			0	0		
Wisby			30.08	764.1	31.6	— 0.2	100	NNW			0		0			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.47	723.0			39.6	4.2	70	NNW			2		10			0	0		The Observatory.
Zurich	28.28	718.2			37.6	3.1	91	NE			1		7			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —2.3mm.; Thermometer, —1°9. C.; Relative Humidity, +5 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.82	757.5	64.6	18.1	73	SW			4		5			Blank	Blank	Rain	
Constantinople			29.78	756.5	40.5	4.7	83	N	2.2	1.0			10		N	0	0		
Fao, (Persian Gulf)			29.36	761.0	67.1	19.5		NW			4		10						
Salonica			29.63	752.6	59.0	15.0		SW			1		5						
Valona			29.70	754.3	58.3	14.6		W			2		3						
Varna			29.84	758.0	41.0	5.0		N			2		10						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.35	770.9	13	—10.6		NE	5	2.2		2	0	NE		0.50	12.7		
Cape Roziere, Quebec			30.51	774.9	7	—13.9	77	N	3	1.3		0	0			0	0		
Chatham, N. B.			30.49	774.4	6	—14.4		N	3	1.3		8	0	Calm		0	0		
Charlottetown, P. E. Island			30.41	772.4	9	—12.8	91	NE	10	4.5		0	0			0	0		
Father Point, Quebec			30.53	775.4	8	—13.3	66	SW	4	1.8		0	0			0	0		
Fort Garry, Manitoba			30.12	765.0	2	—16.7	90	S	8	3.6		0	5		SW	0	0		
Halifax, N. S.			30.16	766.1	25	— 9.4	89	N	2	0.9			10		Calm	Blank	Blank	Light snow	
Kingston, Ontario			30.34	770.6	13	—10.6	88	NE	5	2.2		8	0	Calm		0.29	7.4		
Montreal, Quebec			30.34	770.6	16	— 8.9	81	NE	13	5.8		Haze	5	Calm	Calm	0.02	0.5		
Ottawa, Ontario			30.32	770.1	15	— 9.4	68	NW	3	1.3		8	0	NW		0.10	2.5		
Parry Sound, Ontario			30.32	770.1	5	—15.0	70	Calm	0	0		0	0			0	0		
Port Dover, Ontario			30.28	769.1	17	— 8.3	83	N	12	5.4			10		Calm	0.62	15.7	Threatening	
Port Stanley, Ontario			30.30	769.6	16	— 8.9	89	N	5	2.2			10		W(?)	0.40	10.2		
Quebec, Quebec			30.45	773.4	14	—10.0	82	E			2	8	2	E	E	0	0		
Saugeen, Ontario			30.32	770.1	1	—17.2	74	Calm	0	0		2	0	Calm		0.30	7.6		
Stayner			30.31	769.9	10	—12.2	68	Calm	0	0		Haze	0	Calm		0.23	5.8		
Sydney, C. B.			30.36	771.1	3	—16.1	100	SW	2	0.9		0	2		Calm	0	0		
Toronto, Ontario			30.31	769.9	15	— 9.4	91	N	5	2.2			10		Calm	0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.19	766.8	19	— 7.2	100	NW	14	6.3		Haze	2			0.43	10.9	Clearing	
Alpena, Mich.			30.39	771.9	0	—17.8	85	NW	6	3.7		5	0	W		0	0		
Atlantic City, N. J.			30.11	764.8	26	— 3.3	67	N	9	4.0			8		W	0.45	11.4	Clearing	
Augusta, Ga.			30.19	766.8	42	5.6	66	NW	2	0.9		8	5	N	NW	0.09	2.3		
Baltimore, Md.			30.19	766.8	29	— 1.7	78	NW	8	3.6		5	5	W	N	0.46	11.7		
Barnegat, N. J.			30.02	762.5	24	— 4.4	77	NW	21	9.4			10		NW	0.57	14.5		
Benton, Montana			29.73	755.1	4	—15.6	87	Calm	0	0		0	0			0	0		
Bismarck, Dakota			29.82	757.4	11	—11.7	79	S	3	1.3			10			0.05	1.3		
Boston, Mass.			30.08	764.0	16	— 8.9	100	NE	19	8.5			10			0.09	2.3	Heavy snow.	
Breckenridge, Minn.			30.20	767.1	4	—15.6	90	SE	24	10.7		5	0	SE		0	0		
Buffalo, N. Y.			30.26	768.6	17	— 8.3	83	E	4	1.8			10			0.15	3.8	Light snow.	
Burlington, Vt.			30.28	769.1	18	— 7.8	68	N	5	2.2			10			0.35	8.9	Light snow.	
Cairo, Ill.			30.29	769.4	21	— 6.1	85	NE	4	1.8			2			0.04	1.0		
Cape Hatteras, N. C.			30.17	766.3	40	4.4	73	N	23	10.3			10		N	0.34	8.6		
Cape Henry, Va.			30.19	766.8	35	1.7	70	NW	34	15.2		0	0			0.42	10.7		
Cape May, N. J.			30.11	764.8	28	— 2.2	77	NW	20	8.9		5	0	NW		0	0		
Charleston, S. C.			30.20	767.1	46	7.8	54	N	8	3.6		5	5	N	N	0.02	.5		
Cheyenne, W. T.			29.59	751.6	13	—10.6	79	NW	8	3.6		2	2			0.01	0.3		
Chicago, Ill.			30.39	771.9	13	—10.6	81	Calm	0	0		8	Sm'e			0.03	3.3		
Cincinnati, Ohio			30.35	770.9	20	— 6.7	55	N	4	1.8		0	0			0.06	4.6		
Cleveland, Ohio			30.30	769.7	15	— 9.4	100	SW	8	3.6			10			0.28	7.1	Light snow.	
Colorado Springs, Col.			29.59	751.6	21	— 6.1	71	N	8	3.6		0	2		W	0	0		
Corsicana, Texas			30.01	762.2	35	1.7	80	E	3	1.3		10	0	S		0	0		
Davenport, Iowa			30.38	771.6	9	—12.8	80	Calm	0	0		5	5	W		0	0		
Denver, Col.			29.68	753.9	25	— 3.9	75	Calm	0	0			10			0	0		
Detroit, Mich.			30.34	770.6	9	—12.8	68	NW	6	2.7		0	Sm'e			0	0		
Dodge City, Kansas			29.34	745.2	22	— 5.6	72	SE	18	8.0			10			0	0		
Dubuque, Iowa			30.37	771.4	— 6	—21.1	61	NE	2	0.9			10			0	0		
Duluth, Minn.			30.44	773.2	—11	—23.9	75	Calm	0	0		Haze	10			0	0		
Eastport, Me.			30.27	768.8	14	—10.0	82	NE	18	8.0			10			0	0		
Erie, Penn.			30.26	768.6	20	— 6.7	93	SW	4	1.8			10			Blank	Blank	Light snow.	
Escanaba, Mich.			30.45	773.4	— 2	—18.9	67	N	6	2.7			10		N	0	0		
Fort Gibson, I. T.			30.00	762.0	35	1.7	70	SE	12	5.4			10		SW	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.82	757.4	24	— 4.4	74	SE	12	5.4			10		E	0.01	0.3		
Galveston, Texas			29.97	761.2	58	14.4	87	SE	4	1.8			10		SE	0	0	Threatening	
Grand Haven, Mich.			30.41	772.4	1	—17.2	55	N	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.35	770.9	12	—11.1	70	N	3	1.3		0	Fog			0.20	5.1		
Indianola, Texas			29.96	761.0	56	13.3	93	Calm	0	0		5	0	SW		0	0		
Jacksonville, Fla.			30.17	766.3	52	11.1	59	N	12	5.4		2	0	NW		0	0		
Keokuk, Iowa			30.30	769.6	6	—14.4	76	E	2	0.9		0	2		E	0.04	1.0		
Key West, Fla.			30.12	765.0	75	23.9	81	SE	4	1.8		5	2	SE		0	0		
Kittyhawk, N. C.			30.17	766.3	35	1.7	72	N				10	0	NW		0.02	0.5		
Knoxville, Tenn.			30.24	768.1	28	— 2.2	72	NE	12	5.4		0	0			0	0		
La Crosse, Wis.			30.43	772.9	—12	—24.4	71	W	1	0.4		5	0	W		0	0		
Leavenworth, Kan.			30.20	767.1	19	— 7.2	83	SE	8	3.6			10			0	0		
Lexington, Ky.			30.35	770.9	21	— 6.1	85	E	8	3.6			10			0	0		
Long Branch, N. J.			30.09	764.3	24	— 4.4	80	NW	24	10.7		5	Haze	NE		0.15	3.8		
Louisville, Ky.			30.33	770.4	18	— 7.8	68	N	2	0.9			10			0.06	1.5		
Lynchburg, Va.			30.26	768.6	31	— 0.6	73	W	5	2.2		5	0			0.36	9.1		
Malone, N. Y.																			
Marquette, Mich.			30.41	773.2	7	—13.9	77	Calm	0	0			10			0	0		
Memphis, Tenn.			30.22	767.6	30	— 1.1	79	E	6	2.7		10	0	SW		0	0		
Milwaukee, Wisconsin			30.43	773.0	7	—13.9	77	NW	4	1.8			Fog			0	0	Fog	
Mobile, Ala.			30.16	766.1	46	7.8	69	E	8	3.6		2	2	W		0	0		
Montgomery, Ala.			30.20	767.1	41	5.0	66	NE	3	1.3		10	0	W		0	0		
Morgantown, W. Virginia			30.33	770.4	22	— 5.6	72	SW	8	3.6			10			0.72	18.3		
Mt. Washington, N. H.			29.84	757.9	2	—18.9	100	SE	6	2.7			10		SE	Blank	Blank	Light snow	
Nashville, Tenn.			30.27	768.8	26	— 3.3	76	NE	4	1.8		0	2			0	0		
New Haven, Conn.			30.09	764.3	21	— 6.1	71	N	22	9.8			10		N	0.24	6.1	Light snow	
New London, Conn.			30.04	763.0	20	— 6.7	85	N	18	8.0			10			Blank	Blank	Light snow.	
New Orleans, La.			30.06	763.5	51	10.6	72	NE	6	2.7			10		NE	0	0		
Newport, R. I.																			
New York, N. Y.			30.09	764.3	23	— 5.0	60	NE	24	10.7		0	0			0.79	20.1		
Norfolk, Va.			30.22	767.6	33	0.6	56	N	18	8.0		0	Sm'e			0.51	13.0		
North Platte, Neb.			29.47	773.9	25	— 3.9	87	SE	22	9.8			10			Blank	Blank	Light snow.	
Omaha, Neb.			30.13	765.3	19	— 7.2	84	SE	6	2.7		0	2		N	0	0		
Oswego, N. Y.			30.27	768.8	17	— 8.3	91	NE	5	2.2			10		NE	0.39	9.9		
Peck's Beach			30.14	765.5	27	— 2.8	88	N	26	11.6		2	2	N	N	0.31	8.1		
Pembina, D. T.			30.10	764.5	9	—12.8	78	SE	20	8.9			10			0	0		
Philadelphia, Penn.			30.16	766.1	25	— 3.9	75	N	16	7.2		2	2	N	N	0.28	7.1		
Pike's Peak, C. T.			29.38	746.2	—10	—23.3	100	W	8	3.6		0	Fog			0.03	0.8		
Pittsburgh, Penn.			30.33	770.4	19	— 7.2	84	NW	9	4.0			10			0.36	9.1	Light snow.	
Port Huron, Mich.			30.35	770.9	12	—11.1	80	N	4	1.8		0	2			0.81	20.6		
Portland, Maine			30.19	766.8	12	—11.1	80	NE	26	11.6			10		NE	0.52	13.2	Heavy snow	
Portland, Or.			29.89	759.2	37	2.8	91	SW	5	2.2			10			0.35	8.9		
Punta Rassa, Fla.			30.15	765.8	72	22.2	90	S	1	0.4		5	1	SW		0	0		
Rochester, N. Y.			30.25	768.3	17	— 8.3	100	NE	8	3.6			10			Blank	Blank	Light snow.	
Salt Lake City, Utah			29.82	757.4	25	— 3.9	63	Calm	0	0			10			0.18	4.6		
Sandy Hook, N. J.			30.06	763.5	24	— 4.4	80	N	36	16.1		5	Haze	N		0.42	10.7		
San Diego, Cal.			30.18	766.6	43	6.1	75	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.15	765.8	52	11.1	86	W	12	5.4		Haze	5		W	0.20	5.1	Threatening	
Santa Fe, N. M.			29.40	746.8	20	— 6.7	63	Calm	0	0			10		SW	0.20	5.1	Light snow.	
Savannah, Georgia			30.18	766.6	46	7.8	60	NW	8	3.6		10	0	W		0	0		
Shreveport, La.			30.10	764.5	39	3.9	81	NE	4	1.8		5	2	SW		0	0		
Springfield, Mass.			30.13	765.3	18	— 7.8	83	N	20	8.9			10			0.44	11.2	Heavy snow	
St. Louis, Mo.			30.32	770.1	14	—10.0	84	E	4	1.8		0	2			0.90	22.9		
St. Marks, Fla.			30.13	765.3	48	8.9	71	NE	4	1.8		5	0	W		0.80	20.3		
St. Paul, Minn.			30.31	769.9	— 5	—20.6	63	E	2	0.9		5	0			0	0		
St. Paul's Island, Alaska			29.99	761.7	24	— 4.4	73	NE	15	6.7		0	8			0	0		
Squan Beach, N. J.			30.08	764.0	25	— 3.9	75	NW	10	4.5		0	8		NW	1.53	38.9		
Toledo, Ohio			30.26	768.6	15	— 9.4	87	SW	3	1.3			10			1.00	25.4		
Tybee Island, Ga.			30.20	767.1	46	7.8	60	N	2	0.9		5	2	NW		0	0		
Vicksburg, Miss.			30.17	766.3	39	3.9	71	E	4	1.8			5		E	0	0		
Virginia City, Mon.			29.35	745.5	10	—12.2	79	Calm	0	0		0	0			0	0		
Washington, D. C.			30.24	768.1	26	— 3.3	67	NE	12	5.4		Haze	Sm'e			0.48	12.2		
Wilmington, N. C.			30.20	767.1	42	5.6	49	N	10	4.5		5	0	W		0	0		
Wood's Hole, Mass.			29.91	759.7	27	— 2.8	100	N	15	6.7			10			0.53	13.5	Heavy snow	
Wytheville, Va.			30.05	763.3	26	— 3.3	77	W	8	3.6		2	0	W		0.07	1.8		
Yankton, D. T.			30.14	765.5	12	—11.1	70	SE	8	3.6			10		SE	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—13.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.04	763.0	76	24.4		E	3	1.3		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			29.99	761.7	74	23.3		NE				0	5		NE	0	0		
Havana, Cuba, W. I.			29.92	760.0	72	22.2	85		2	0.9		2	0	S		0	0		
Kingston, Jamaica, W. I.			30.29	769.4	73	22.8	9	Calm	0	0		2	0	SE		0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.92	760.0	74	23.3	76	Calm	0	0		0	0			0	0		
St. Georges, Bermudas			30.07	763.8	69	20.6	85	SW	36	16.1		2	2	W		0	0		
Honolulu, Oahu, S. I.			30.24	768.1	68	20.0		Calm			0					0	0	Threatening	
Makawao, Maui, S. I.			30.09	764.3	62	16.7	82	Calm	0	0		5	3	S	NE	0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.56	776.2	—22	—30.0		E	8	3.6		0	0	E		0	0		
Clifton, Jamaica, W. I.			30.16	766.1	63	17.2		N	3	1.3		2	2	N		0	0		C. Partridge.
St. Johns, Newfoundland			30.37	771.4	13	—10.6	91	E				0	0			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.11	764.7	73.4	23.0	74	E			3	2	0			0.024	0.60		Leon M. Acuña.
Ellyria, Ohio	29.47	748.5			14	—10.0	80	W	4	1.8		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.37	746.0			20	— 6.7		SE				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 5, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0															Charnot.
Algiers			30.11	764.7	63.7	17.6	65	W			4		3			0.012	0.3		Peter.
La Calle			30.04	763.1															Kuntz.
Tunis			30.04	763.0	61.9	16.6	53	WSW			3		10			0	0		Jacques.
Sfax			30.12	765.0															Chauvey.
Saida			30.15	765.7	65.1	18.4		WSW			1		0			0	0		Grosjean.
Tebessa			30.11	764.7															Colin.
Geriville			30.16	766.0	62.8	17.1		NW			3		2			0	0		Bernadach.
Laghouat			30.17	766.2	68.9	20.5	16	NW			3		1			0	0		Poinsignon.
Biskra			30.17	766.4	71.2	21.8	27	NW			3		1			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.13	765.2	32.0	0.0	67	NE			4		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.10	766.9	27.9	— 2.3	72	NE			1		10			0	0		I. R. Observatory.
Eperies			30.11	764.9	28.0	— 2.2	83	N			2		9			0	0		Julius Mikolik.
Gratz			30.11	764.8	30.6	— 0.8	68	S			2.5		0			0	0		Andreas Rospini.
Hermannstadt			29.97	761.2	32.0	0.0	74	ESE			1		7			0	0		Prof. Reissenberger.
Kremsmünster			30.15	765.9	27.0	— 2.8	70	NE			3		0			0	0		Prof. C. Wagner.
Lemberg			30.10	764.5	25.7	— 3.5	86	NW			3		10			0.004	0.1		Dr. T. Stanecki.
Nyiregyhaza			30.08	764.1	30.6	— 0.8	88	N			3		9			0	0		Habzsuda Daniel.
Pola			30.07	763.8	36.1	2.4	55	E			4		1			0	0		I. R. Hydrographic Office
Szegedin			30.4	763.1	28.0	— 2.2	96	E			3		8			0	0		Karl Stancel.
Trieste			30.09	764.2	37.8	3.2	58	E			2		0						Prof. V. Farolfi.
Vienna			30.18	766.5	28.4	— 2.0	72	N			2		9			Blank	Blank		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.85	758.1			40.5	4.7	67	E			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.06	763.5	39.2	4.0		SSE	17	7.6			9			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.96	753.4	42	5.6		ESE			3		4						William McNeil.
Armagh Observatory			29.85	758.2	40.0	4.4		SE	18	8.0			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.92	760.0	40.5	4.7		E			4		1					Mist	The Liverpool Obs.
Birr Castle			29.70	754.4	42.3	5.7		SE			3-4		10						J. Dreyer.
Bradford			29.94	760.5	36.9	2.7		E			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.99	761.7	41.0	5.0		SE			1		2						H. Todd.
Cape Town, Cape Colony			29 86	758.4	75	23.9		SE			7		7						Sgt. D. E. Hunt
Cape Good Hope Obs.	29.92	760.0			65.6	18.9	51	SSW	30	13.4			2						The Royal Observatory.
Cardington			29.95	760.7	43.0	6.1		SE					2						John McLaren.
Carlisle			29.98	761.5	43.1	6.2		SE					1			0	0		T Bell.
Chatham			29.97	761.2	43.2	6.2		E			2		0						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.93	760 2	75.6	24.2		NW			6		7						Sgt. W. F. Hopkins
Dartmoor			29.90	759.4	37.2	2.9		E			6		3						R. E. Power.
Donaghadee			29.85	758.2	40	4.4		SE			5		7						J. Mac Gowan, Jr.
Dover			29.99	761.7	42	5.6		E			4		1						J. Costello.
Dublin																			
Durham Observatory			30.00	762.0	37.0	2.8		SE					6						G. Goldney.
Eccles, (near Manchester)			29.98	761.5	43.5	6.4		SE	3.6	1.5			0					Mist	Thomas Mackereth.
Falmouth Observatory			29.75	755.6	46.7	8.2		ESE	39	17.4			9						The Falmouth Obs.
Fort Napier, (Natal)			29.76	755.9	83.6	28.7		SE			3		1						Pvt. G. Salmon.
Galway			29.50	749.3	39	3.9		E			7		10						Queen's College.
Gibraltar, (Mediterranean)			30.09	764.3	65.2	18.4		W			4		6						Sgt. J. Brewster.
Glasgow Observatory			29.97	761.2	37.2	2.9		E			2		3						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.04	763.0	37	2.8		ESE			4		3					Mist	G. T. Watson.
Greenwich Royal Obs			29.97	761.2	44.2	6.8		E			2		0						The Royal Observatory.
Guernsey			29.86	758.4	45.5	7.5		ESE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.96	761.0	36.8	2.7		ESE					6						Moorside Observatory
Halifax, (Nova Scotia)			30.48	774.2	14.3	— 9.8		NW			3		10						Corp'l J. Y. Thompson.
Helston			29.72	754.9	50	10.0		S			6		4						W. B. Moyle.
Holyhead			29.83	757.7	44	6.7		SSE			3		0						John Tilston.
Hull Park																			
Kew Observatory			29.97	761.2	45.7	2.6		ESE	13	5.8			3					Mist	The Met. Office.
Kingstown			29.83	757.7	41	5.0		SE			5		8					Haze	George Mitchell.
Lampeter																			
Leicester			29.98	761.5	40.8	4.9		E			2		1						William J. Harrison
Llandudno			29.87	758.7	43.4	6.3		SE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.11	764 8	59.6	15.3		NW			2		8						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.97	761.2	42	5.6		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.14	765.5	75.4	24.1		SE			2		6						Surgeon I. Jameson
North Shields			30.04	763.0	38	3.3		S			4		6						John Wm. Irvine.
Nottingham			30.00	762.0	41.5	5.3		SE			2		1		ESE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.97	761.2	40.9	4.9		SE			2		9					Mist	St. Mary's College.
Oxford, Radcliffe Obs			29.94	760.5	44	6.7		SE			1		10						Radcliffe Observatory.
Plymouth			29.80	756.9	47	8.3		SE			5		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.55	750.6	46	7.8		SE			7		10						W. Kennedy.
Saint Ann's Head			29.77	756.1	44	6.7		SE			6		5					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.00	762.0	38	3.3		SSE	37	16.5			4						Rev. Dr. Clouston.
Scarboro'			30.04	763.0	35.0	1.7		SE			5		9						F. Heard.
Scutari, (Turkey)			29.78	756.4	43.4	6.3		ENE			5		10			Blank	Blank		W. H. Lyne.
Sheffield			29.97	761.2	39.8	4.4		SE			1		4						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.96	761.0	42.0	5.6		E			4		0						Francis Redford.
Somerleyton, (Lowestoft)			30.02	762 5	42.3	5.7		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			29.96	761.0	37.6	3.1		E			3							Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.92	760.0	40	4.4		SE			2		0						John Smith.
Strathfield Turgiss			29.91	759.7	44.0	6.7		SE			1		4						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.01	763.0	42	5.6		SW			4		10					Rain	William Lawrence.
Taunton College																			
Thurso			30.00	762.0	39	3.9		SE			4		5						John Trotter.
Truro, Royal Institution			29.66	753.4	48	8.9		E			7		10						Royal Institution.
Valencia			29.38	746.2	48.5	9.2		SE	43	19.4			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			29.96	761.0	44	6.7		SE			2		0						S. H. Miller.
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.21	767.3	34.0	1.1	70	NE			2		0						
Fanöe			30.24	768.2	34.7	1.5	71	Calm			0		0						
Godthaab, (Greenland)			29.81	757.1	- 7.1	—21.7		N			4		8						
Stykkisholm, (Iceland)			29.63	752.6	42.1	5.6	73	SE			4		8						
Thorshavn, (Faröe)			29.95	760.7	42.4	5.8	67	SSE			4		5						
Vestervig			30.18	766.5	37.9	3.3	78	Calm			0		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.21	767.2	55.0	12.8	97						10						Normal School.
Alençon			29.94	760.4	47.1	8.4	53	SW			2		0			0	0		Normal School.
Amiens			29.98	761.4	46.0	7.8	71	E			3		0			0	0		Normal School.
Beaumette, (near Angers)			29.93	760.3	51.3	10.7	58	E	4.0	1.8			1		SW	0	0		Beaumette Observatory.
Beauvais			29.99	761.7	43.0	6.1	88	SE			1		0			0	0		Normal School.
Besançon			30.01	762.3	41.7	5.4	76	E			3		0			0	0		Normal School.
Bourges			29.99	771.7	44.6	7.0		NE			2		1		NE	0.016	0.4		Normal School.
Brest			29.96	753.4	49.1	9.5	84	SSE			4		8		S	0	0		Naval Observatory.
Caen			29.94	760.5	41.1	6.7	64	ESE			4		2		ESE	0	0		Normal School.
Carcassonne																			
Chartres			29.98	761.6	44.6	7.0		ESE			1		9		SE	0	0		Normal School.
Chaumont			29.99	761.7	41.9	5.5		E			2		0			0	0		Normal School.
Le Mans			29.95	760.6	45.0	7.2	77	SSE			2		0			0	0		Normal School.
Mirecourt			29.96	761.0	39.4	4.1		NNE			2		0			0	0		Normal School.
Orleans			29.99	761.8	44.6	7.0	55	E			2		0			0	0		Normal School.
Paris			29.97	761.2	44.6	7.0		ESE			2		0			0	0	Fog	National Observatory.
Parthenay			29.84	758.0	50.0	10.0	61	SE			2		5		SE	0	0		
La Roche sur Yon			29.89	759.2	47.5	8.6	89	E			4		2		SE	0	0		Normal School.
Rouen			29.95	760.7	48.6	9.2	38	SE			2		0			0	0		Normal School.
Saint Lo			29.89	759.3	48.0	8.9	78	SE			2		0		SE	0	0		Normal School.
Villefranche			30.09	764.4	46.2	7.9	77	SW			1		5		SW	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.88	759.0	72.9	22.7	62	N			2		0			0	0		Père Pascall.
Mont-Louis	24.70	627.4			36.1	2.3	69	SSW	18.6	8.3			6		WSW	0	0		—. Faiguère.
Montsouris (near Paris)			29.97	761.1	46.4	8.0	59	E	3.1	1.4			0		SE	0	0	Hazy	Marié Davy.
Perpignan	29.82	757.4			55.6	13.1	55	ESE	5.6	2.5			6		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.98	761.5	46.4	8.0	49	E			2		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.95	760.6	47.1	8.4	62	S			1		0		NNW	0	0		C. Marquet.
Versailles, (near Paris)			29.97	761.2	45.7	7.6	59	SE			2		0			0	0		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.15	765.9	34.3	1.3	65	NE			3		2			0	0		Prof. Hoh.
Berlin			30.29	769.4	34.9	1.6	95	N			1		2			0	0		Prof. Arndt.
Breslau			30.24	768.1	29.8	— 1.2	60	NNE			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.10	764.6	36.1	2.3	50	NE			3.5		0			0	0		A. Leuz.
Cassel			30.17	766.2	36.0	2.2	82	SE			2		0			0	0		Dr. H. Mohl.
Cologne			30.13	765.4	35.4	1.9	61	SE			4		1			0	0		Dr. Gaithe.
Emden			30.30	769.6	36.5	2.5	46	SE			1		0			0	0		Prof. Prestel.
Frankfort on the Main			30.27	768.8	36.5	2.5	51	ESE			3		0			0	0		Physical Society.
Friedrichshafen			30.10	764.6	28.4	— 2.0	90	NE					4			0	0		M. Wilhelm.
Hamburg			30.28	769.1	41.9	5.5	43	SE			2		3			0	0		W. Reinart.
Kiel			30.27	768.7	37.6	3.1	61	NNE			2		0			0	0		Prof. G. Karsten.
Königsberg			30.14	765.6	29.8	— 1.2	72	NW			2		9			0.004	0.1		Prof. E. Luther.
Köslin			30.44	773.2	33.8	1.0		NW			2		9			0	0		Dr. T gert.
Leipsic			30.28	769.0	28.4	— 2.0	88	ENE			1		2			0	0		Prof. Bruhns.
Münster			30.13	765.2	36.5	2.5	82	E			2		0			0	0		Prof. E. Heis.
Posen			30.24	768.1	31.3	— 0.4	87	W			2		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.08	764.0	36.7	2.6	50	NW					0			0	0		Hartwig and Fulk.
Stuttgart			30.08	763.1	35.6	2.0	58	NE					0			0	0		Mr. Wurth.
Thorn			30.18	766.6	33.8	1.0	61				4		7			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.04	763.0	38.3	3.5	47	NE			6		0						Prof. Riesch.
Wustrow			30.28	769.1	31.1	— 0.5	93	S			2		0			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.08	764.0	34.5	1.4	78	NNW			1		10			0	0		
Mondovi			30.05	763.2	36.0	2.2	73	NW			4		10			Blank	Blank	Light snow.	
Genoa			29.95	760.6	47.7	8.7	54	NE	3.1	1.4			10	NW		0	0		
Pavia			30.05	763.2	36.5	2.5	75	E			8		10			0	0		
Verona			30.08	763.9	38.8	3.8	79	E			2		10			0	0		
Padua			30.09	764.4	37.2	2.9	67	S	4.9	2.2			10			0	0		
Parma																			
Bologna			30.4	762.9	37.8	3.2	53	ESE			8		4	N		0	0		
Livorno			29.93	76[illegible].2	48.7	9.[illegible]	63	ENE	4.9	2.2			3			0	0		
Urbino			30.12	765.1	32.4	0.2		NNE			2		10			0	0		
Ancona			30.08	764.0	39.2	4.0	67	E			2		1			0	0		
Siena			30.00	762.1	38.3	3.4	73	ENE	2.5	1.1			6			0	0		
Rome			29.96	760.9	48.2	9.0	56	NNE	6.9	3.1			9	NE		0	0		
Naples, O.U.			29.96	761.0	51.8	11.0	50	S			2		8	NW		0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			29.96	761.0	47.1	8.4	46	NW	19.2	8.6			2			0	0		
Cosenza			29.97	761.1	49.8	9.9	58	NW			2		10			0.248	6.3	Rain	
Catania, (Sicily)			29.98	761.5	57.7	14.3	63	W			2		2	W		0	0		
Liposto																			
Palermo			29.91	759.7	59.0	15.0	50	WSW			2		10			0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.09	764.2	38.1	3.4		SE			3								
Groningen			30.12	765.0	33.8	1.0		SE			4								
Helder			30.13	765.2	30.7	— 0.7		E			4								
Utrecht			30.06	763.6	38.5	3.6		SE			3		0						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.22	767.6	34.0	1.1	73	Calm	0	0			0			0	0		
Christiania			30.23	767.8	32.0	0.0	67	ENE	3.1	1.4			2			0	0	Haze	
Tromsö			30.02	762.4	36.1	2.3	91	W			2		10			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.54	750.3			58.2	14.6	90	SSW	29.7	13.3			10						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.15	765.9	31.6	— 0.2	85	NNW	7	3			8						Astronomical Obs.
Wilna			30.04	763.0	25.9	— 3.4	93	Calm	0	0			10						Astronomical Obs.
Dorpat			30.06	763.5	30.2	— 1.0	64	NNE	4	2			3						Physical Cabinet.
St. Petersburg			30.11	764.7	9.9	—12.3	73	NE	7	3			1						Central Physical Obs.
Kieff			30.01	762.3	25.5	— 3.6	76	WNW	11	5			3						Physical Cabinet.
Nikolaiev			29.97	761.1	27.0	— 2.8	62	N	10.1	4.5			4						
Kertch			29.91	759.7	32.5	0.3	87	N	7.8	3.5			5						Lagorio.
Moscow			29.80	756.8	12.7	—10.7	76	NE	10.1	4.5			10						Meteorological Obs.
Lugan			29.72	755.0	23.5	— 4.7	79	NW	7.8	3.5			10						Meteorological Obs.
Archangel			30.17	766.4	— 1.5	—18.6	61	Calm	0	0			0						Ogorodnikof.
Tiflis			29.68	753.8	48.6	9.2	49	N	25	11			9						Physical Obs.
Astrakhan			29.77	756.2	38.5	3.6	84	N	4	2			10						Sebastianof.
Kasan			29.61	752.2	— 0.6	—18.1	61	N	4	2			4						Physical Cabinet.
Orenburg			29.69	754.2	16.9	— 8.4	99	Calm	0	0			10						Tschernischef.
Ekaterinburg																			Meteorological Obs.
Kassaly			29.89	759.2	40.1	4.5	82	NW	7	6			10						Bobrof.
Tashkend			30.20	767.0	43.5	6.4	79	NE	7.8	3.5			0						Michelson.
Barnaul			29.77	756.1	21.0	— 6.1	85	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.67	753.6	8.2	—13.2	76	E	7.8	3.5			0						Marks.
Irkutsk																			Usolzef.
Oorga			29.93	760.3	12.9	—10.6	75	Calm	0	0			0						Mossin.
Peking, (China)			29.94	760.5	41.4	5.2	53	S	7.8	3.5			8						Physical Observatory
Nertchinsk			29.84	757.9	9.3	—12.6	58	NW	7.8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.05	763.3	46.4	8.0	92	S	10.5	4.7			10			0.043	1,1		Royal Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.13	765.3	32.7	0.4	92	S			2		3			0	0		Dr. Hildebrandsson.
Hernosand			30.15	765.7	39.2	4.0	84	Calm			1		2			0	0		
Upsala			30.15	765.9	33.4	0.8	71	NNW			2		3						
Stockholm			30.12	765.1	37.8	3.2	58	NNW			0		2			0	0		
Wisby			30.06	763.5	31.3	— 0.4		N			2		0			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.54	725.0			39.9	4.4	64	N			2		2			0	0		The Observatory.
Zurich	28.35	720.2			33.3	0.7	82	NE			1		4			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —0.3mm.; Thermometer, —1°8. C.; Relative Humidity, 0 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.75	755.6	63.9	17.6	67	W			1		10						
Constantinople			29.77	756.2	41.9	5.5	70	ENE	26.8	12.0			10		NE	0.413	10.5		
Fao, (Persian Gulf)			30.01	762.3	68.0	20.0		NW			3		0						
Salonica																			
Valona			29.85	758.3	48.7	9.3		NW			3		3						
Varna			29.92	760.0	32.0	0.0		N			3		10			Blank	Blank	Light snow.	

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.39	771.9	12	—11.1		NE	1	0.4			10		NE	0	0		
Cape Roziere, Quebec			30.59	777.0	15	— 9.4	82	N	2	0.9		2	2	NW	NW	0	0		
Chatham, N. B.			30.62	777.7	—19	—25.0	100	Calm	0	0		8	0	Calm		0	0		
Charlottetown, P. E. Island			30.53	775.4	12	—11.1	88	N	9	4.0		0	0			0	0		
Father Point, Quebec			30.43	772.9	4	—15.6	48	SW	8	3.6		2	0			0	0		
Fort Garry, Manitoba			30.14	765.5	16	— 8.9	97	S	4	1.8		5	5	S	S	0.073	1.85		
Halifax, N. S.			30.40	772.1	13	—18.6	82	N	9	4.0		0	0			0	0		
Kingston, Ontario			30.07	771.4	14	—10.0	83	Calm	0	0			10		Calm	0	0		
Montreal, Quebec			30.46	773.7	4	—15.6	87	SW	8	3.6		Haze	5	Calm	Calm	0	0		
Ottawa, Ontario			30.40	772.1	12	—11.1	70	E	5	2.2		10	0	SW		0	0		
Parry Sound, Ontario			30.23	767.8	15	— 9.4	82	E	17	7.6		5	5	E	E	0	0		
Port Dover, Ontario			30.16	766.1	17	—18.3	100	NE	11	4.9			10		Calm	Blank	Blank	Light snow.	
Port Stanley, Ontario			30.11	764.8	19	— 7.2	90	E	12	5.4			10		E(?)	0.04	1.0	Heavy snow	
Quebec, Quebec			30.57	776.5	2	—16.7	72	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.16	766.1	16	— 8.9	91	E	5	2.2		8	2	Calm	Calm	0	0		
Stayner			30.16	766.1	16	— 8.9	97	SE	10	4.5			10		SE	Blank	Blank	Snow	
Sydney, C. B.			30.44	773.2	15	— 9.4	77	NE	6	2.7		0	0	Calm	Calm	0	0		
Toronto, Ontario			30.23	776.8	—19	— 7.2	92	E	10	4.5			10		Calm	0.04	1.0	Heavy snow.	

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.46	773.7	6	—14.4	100	Calm	0	0			10			0	0		
Alpena, Mich.			30.14	765.5	15	— 9.4	82	Calm	0	0			10			0	0		
Atlantic City, N. J.			30.40	772.1	30	— 1.1	79	N	4	1.8			10			0	0		
Augusta, Ga.			30.04	763.0	47	8.3	100	E	8	3.6			10		E	0.99	25.1	Heavy rain	
Baltimore, Md.			30.35	770.9	30	— 1.1	79	NE	3	1.3		5	5	W	W	0	0		
Barnegat, N. J.			30.35	770.1	30	— 1.1	79	NE	1	0.4			10			0	0		
Benton, Montana			30.14	765.5	2	—16.7	86	NE	2	0.9		10	0	W		0	0		
Bismarck, Dakota			30.03	762.7	11	—11.7	79	E	4	1.8			10			0.48	12.2	Light snow	
Boston, Mass.			30.48	774.2	20	— 6.7	70	N	6	2.7			10			0.10	2.5		
Breckenridge, Minn.			30.16	766.1	2	—16.7	85	E	8	3.6		5	0	SE		0	0		
Buffalo, N. Y.			30.16	766.1	17	— 8.3	83	NE	4	1.8		Haze	Sno'e			0	0		
Burlington, Vt.			30.45	773.4	14	—10.0	63	S	2	0.9		2	5			0	0		
Cairo, Ill.			29.86	758.4	37	2.8	80	SE	5	2.2			10		S	0.03	0.8	Threatening	
Cape Hatteras, N. C.			30.22	767.6	45	7.2	84	NE	24	10.7			10		NE	0.22	5.6	Light rain	
Cape Henry, Va.			30.33	770.4	36	2.2	80	E	22	9.8			10		NE	2.02	0.5	Light rain	
Cape May, N. J.			30.36	771.1	31	— 0.6	89	NE	14	6.3			10		NE	0	0		
Charleston, S. C.			30.5	763.3	56	13.3	93	E	8	3.6			10		E	0.13	3.3		
Cheyenne, W. T.			29.71	754.6	13	—10.6	79	NW	16	7.2		0	2			0	0		
Chicago, Ill.			29.95	760.7	23	— 5.0	86	E	9	4.0			10			1.05	1.3	Light snow	
Cincinnati, Ohio			29.95	760.7	35	1.7	70	E	6	2.7		10	0	W		0	0		
Cleveland, Ohio			30.0	762.0	26	— 3.3	9	SE	3	1.3			10			0.07	1.8	Light snow	
Colorado Springs, Col.			29.62	752.3	18	— 7.8	84	NE	6	2.7			10		S	0	0		
Corsicana, Texas			29.90	759.4	43	6.1	66	SW	4	1.8		5	0	W		0	0		
Davenport, Iowa			29.91	759.7	21	— 6.1	100	NE	4	1.8			10			0	0		
Denver, Col.			29.78	756.4	12	—11.1	80	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.03	762.7	21	— 6.1	85	NE	7	3.1			10			0.01	0.3	Light snow	
Dodge City, Kansas			29.56	750.8	23	— 5.0	66	NW	6	2.7			10			0.01	0.3		
Dubuque, Iowa			29.96	761.0	21	— 6.1	85	NE	6	2.7			10			Blank	Blank	Light snow	
Duluth, Minn.			30.14	765.5	10	—12.2	79	N	8	3.6		Haze	8			0	0		
Eastport, Me.			30.54	775.7	15	— 9.4	82	NE			4	0	0			0	0		
Erie, Penn.			30.07	763.8	28	— 2.2	88	SE	12	5.4			10			Blank	Blank	Light snow	
Escanaba, Mich.			30.14	765.5	9	—12.8	78	N	8	3.6			10		N	0	0		
Fort Gibson, I. T.			29.82	757.4	33	0.6	89	NW	3	1.3		5	2	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.97	761.2	18	— 7.8	76	E	2	0.9			10		E	0.03	0.8		
Galveston, Texas			29.93	760.2	60	15.6	94	NE	4	1.8			Fog		NE	0.02	0.5	Fog	
Grand Haven, Mich.			30.02	762.5	19	— 7.2	83	E	14	6.3			10			Blank	Blank	Light snow	
Indianapolis, Ind.			29.91	759.7	31	— 0.6	79	SE	5	2.2			10		SE	0.01	0.3		
Indianola, Texas			29.91	759.7	57	13.9	100	N	14	6.3			Fog			0	0	Fog	
Jacksonville, Fla.			30.01	762.2	63	17.2	94	SE	8	3.6			10			0	0		
Keokuk, Iowa			29.82	757.4	21	— 6.1	85	NE	7	3.1			10		NE	0.01	0.3	Threatening	
Key West, Fla.			30.06	763.5	76	24.4	72	SE	11	4.5		Haze	2		SE	0	0		
Kittyhawk, N. C.			30.29	769.4	4	—15.6	91	E					10		E	0.05	1.3	Light rain	
Knoxville, Tenn.			30.03	762.7	42	5.6	91	S	2	0.9			10		E	0.20	5.1		
La Crosse, Wis.			30.01	762.2	19	— 7.2	100	NE	6	2.7			10		NE	0.08	2.0	Light snow	
Leavenworth, Kan.			29.86	758.4	23	— 5.0	95	N	6	2.7			10			0.06	1.5	Light snow	
Lexington, Ky.			29.98	761.5	34	1.1	71	SE	13	5.8		8	0	SE		0.23	5.8		
Long Branch, N. J.			30.45	773.4	26	— 3.3	81	E	10	4.5			10			0	0		
Louisville, Ky.			29.92	760.0	41	5.0	70	Calm	0	0		0	Fog			0	0		
Lynchburg, Va.			30.31	769.9	30	— 1.1	89	NE	4	1.8			10		NE	0.09	2.3	Sleet	
Malone, N. Y.																			
Marquette, Mich.			30.16	766.1	9	—12.8	78	NW	4	1.8		5	0			0	0		
Memphis, Tenn.			29.90	759.4	44	6.7	92	S	4	1.8			10			0.01	0.3		
Milwaukee, Wisconsin			30.03	762.7	20	— 6.7	85	SE	15	6.7			10			1.01	0.3	Light snow	
Mobile, Ala.			29.96	761.0	51	10.6	93	NE	6	2.7			10		NE	1.04	26.4		
Montgomery, Ala.			29.97	761.2	49	9.4	93	E	8	3.6		0	10		E	0.85	21.6	Threatening	
Morgantown, W. Virginia			30.06	763.5	55	1.7	85	E	1	0.4		0	10			0	0	Light snow	
Mt. Washington, N. H.			30.17	766.3	20	— 6.7	74	E	32	14.3		0	2			0	0		
Nashville, Tenn.			29.93	760.2	46	7.8	85	SE	8	3.6			10		E	0.01	0.3		
New Haven, Conn.			30.48	774.2	22	— 5.6	72	NE	16	7.2			10		NE	0	0		
New London, Conn.			30.47	773.9	23	— 5.0	73	N	7	3.1			10			0	0		
New Orleans, La.			29.95	760.7	54	12.2	93	NE	4	1.8			Fog			0.20	5.1	Fog	
Newport, R. I.																			
New York, N. Y.			30.14	773.2	28	— 2.2	86	S	11	4.9			Fog			0.20	5.1		
Norfolk, Va.			30.31	769.9	36	2.2	80	E	6	2.7			10			0.01	0.3	Light rain	
North Platte, Neb.			29.56	750.8	23	— 5.0	86	Calm	0	0			10			0.09	2.3		
Omaha, Neb.			29.95	760.7	15	— 9.4	91	N	4	1.8			10			0	0		
Oswego, N. Y.			30.33	770.4	20	— 6.7	85	SE	12	5.4			10			0	0		
Peck's Beach			30.41	772.4	30	— 1.1	100	E	17	7.6			10			0	0		
Pembina, D. T.			30.11	764.9	12	—11.1	80	Calm	0	0		0	5			0	0		
Philadelphia, Penn.			30.44	773.2	24	— 4.4	75	E	10	4.5		2	8	E	E	0	0		
Pike's Peak, C. T.			29.42	747.3	—15	—26.1	100	W	6	2.7		0	Fog			0	0		
Pittsburgh, Penn.			30.11	764.8	30	— 1.1	89	SE	6	2.7			10			Blank	lank	Light snow	
Port Huron, Mich.			30.08	764.0	19	— 7.2	84	NE	6	2.7			10			0.02	0.5	Light snow	
Portland, Maine			30.53	775.4	14	—10.0	63	NE	14	6.2		0	0			0.18	4.6		
Portland, Or.			29.61	752.1	41	5.0	94	SE	2	0.9			10			0.20	5.1	Light rain	
Punta Rassa, Fla.			30.09	764.3	73	22.8	83	SE	12	5.4		2	1	SE		0	0		
Rochester, N. Y.			30.22	767.6	18	— 7.8	84	SE	12	5.4			10			0	0		
Salt Lake City, Utah			30.05	763.3	26	— 3.3	64	N	6	2.7			10			0.12	3.0		
Sandy Hook, N. J.			30.43	772.9	26	— 3.3	81	E	8	3.6			10		E	0	0		
San Diego, Cal.			30.10	764.5	47	8.3	85	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.19	766.8	46	7.8	84	Calm	0	0		0	0			0.03	0.8		
Santa Fe, N. M.			29.44	747.8	19	— 7.2	62	W	12	5.4			10		SW	0.14	3.5	Light snow	
Savannah, Georgia			30.00	762.0	60	15.6	88	E	2	0.9			10		SE	1.29	7.4	Threatening	
Shreveport, La.			29.92	760.0	53	11.7	96	S	2	.9			10			0	0		
Springfield, Mass.			30.51	774.9	18	— 7.8	67	NE	4	1.8			10			0.02	0.5		
St. Louis, Mo.			29.82	757.4	30	— 1.1	78	SE	8	3.6		2	2	S		0	0		
St. Marks, Fla.			29.94	760.5	62	16.7	94	E	12	5.4			10			0.42	10.7	Heavy rain	
St. Paul, Minn.			29.99	761.7	15	— 9.4	82	NE	4	1.8			10			0	0		
St. Paul's Island, Alaska			29.76	755.9	30	— 1.1	67	SE	25	11.2		10	0			0	0		
Squan Beach, N. J.			30.42	772.7	35	1.7	80	E	9	4			10		E	0	0		
Toledo, Ohio			29.95	760.7	23	— 5.0	86	NE	12	5.4			10		NE	0.01	0.3	Light snow.	
Tybee Island, Ga.			30.03	762.7	59	15.0	94	NE	2	0.9			10		S	0.44	11.2		
Vicksburg, Miss.			29.97	761.2	49	9.4	93	S	4	1.8		10	Fog	W		0.05	1.3	Fog	
Virginia City, Mon.			29.69	754.1	7	—13.9	77	Calm	0	0		0	0			0.20	5.1		
Washington, D. C.			30.34	770.6	29	— 1.7	89	E	8	3.6			10		SW	0	0	Threatening	
Wilmington, N. C.			30.18	766.6	44	6.7	92	NE	12	5.4			10		NE	0.14	3.5	Light rain	
Wood's Hole, Mass.			30.44	773.2	30	— 1.1	68	N	2	0.9			10			0.24	6.1		
Wytheville, Va.			30.02	762.5	32	0.0	79	SE	4	1.8			10			0.10	2.5	Sleet	
Yankton, D. T.			30.06	763.5	8	—13.3	78	Calm	0	0			10			0.03	0.8		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.02	762.5	75	23.9		NE	4	1.8		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.05	763.3	72	22.2		NE				5	2	NE		0.8	2.0		
Havana, Cuba, W. I.			29.87	758.7	74	23.3	76	[illegible]	2	0.9		5	0			0	0		
Kingston, Jamaica, W. I.			30.25	768.3	74	23.3	90	Calm	0	0		0	8			0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.88	758.9	71	21.7	75	N	1	0.4		0	0			0	0		
St. Georges, Bermudas			30.08	764.0	62	16.7	69	NW	51	22.8		2	10	NW		0·120	2.78		
Honolulu, Oahu, S. I.			30.10	764.5	66	18.9		NE			3					0	0	Threatening	
Makawao, Maui, S. I.			30.01	762.2	59	15.0	87	SE	1.2	0.5		0	5		SE	0.14	3.6		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.43	772.9	−14	−25.6	72	N	10	4.5		4	0			0.28	7.1		C. Partridge.
Clifton, Jamaica, W. I.			30.14	765.5	58	14.4		N	3	1.3		2	2	N		0	0		John Delaney.
St. Johns, Newfoundland			30.36	771.1	16	− 8.9	100	NE				0	0			0	0		Leon M. Acuña.
St. Johns, Porto Rico, W. I.			30.08	764.1	73.8	23.2	82	E			2	3	4			0	0		H. M. Redington.
Ellyria, Ohio	29.19	741.4			24	− 4.4	86	E				0	10			0	0		G. C. Carpenter.
Indianola, Iowa	29.10	739.1			15	− 9.4		NW				0	9			0	0		

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below −10° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 6, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.28	769.1															
Algiers			30.24	768.2	68.0	20.0	55	SW			1		3			0	0		Charnot.
La Calle			30.24	768.0															Peter.
Tunis			30.23	767.8	64.9	18.3	53	WNW			3		7			0	0		Kunts.
Sfax			30.25	768.4															Jacques.
Saïda			30.29	769.4	66.2	19.0		NW			2		2			0	0		Chauvey.
Tebessa			30.26	768.6															Grosjean.
Geriville			30.30	769.7	66.4	19.1		NW			2		0			0	0		Colin.
Laghouat			30.31	769.8	70.7	21.5	12	NW			1		1			0	0		Bernadach.
Biskra			30.28	769.0	76.3	24.6	27	NW			3		2			0	0		Poinsignon.
																			Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.33	770.3	33.3	0.7	65	Calm			0		0			0	0		Prof. Ivan Stoair.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.35	770.8	27.5	— 2.5	71	W			2		10			0	0		I. R. Observatory.
Eperies			30.27	768.8	30.9	— 0.6	81	NW			1		10			0	0		Julius Mikolik.
Gratz			30.25	768.3	31.1	— 0.5	77	S			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.22	767.6	31.6	— 0.2	79	N			1		10			0.061	1.55	Snowy	Prof. Reissenberger.
Kremsmünster			30.31	769.9	26.6	— 3.0	72	NE			1		0			0	0		Prof. C. Wagner.
Lemberg			30.23	767.7	30.0	— 1.1	90	W			3		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.27	768.8	34.5	1.4	85	NW			3		8			0	0		Habsuda Daniel.
Pola			30.26	768.7	41.0	5.0	60	WNW			3		0			0	0		I. R. Hydrographic Office
Szegedin			30.30	769.7	28.4	— 2.0	84	SW			2		3			0	0		Karl Stancel.
Trieste			30.28	769.1	44.1	6.7	45	WSW			0		0						Prof. V. Farolfi.
Vienna			30.34	770.7	29.3	— 1.5	70	N			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.78	756.4			45.1	7.3	62	SSE			1		10		SW	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	39.5	4.2		SSE	29	13.0			10			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.57	751.1	41	5.0		ESE			4		7					Rainy	William McNeil.
Armagh Observatory			29.42	747.3	48.0	8.9		SE	30	13.4			7						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.57	751.1	42.8	6.0		ESE			4		10						The Liverpool Obs.
Birr Castle			29.30	744.2	53.0	11.7		SE			3		10						J. Dreyer.
Bradford			29.65	753.1	36.3	2.4		E			1		10					Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.74	75 .4	43.0	6.1		S			2		10			Blank	Blank		H. Todd.
Cape Town, Cape Colony			29.95	760.7	72	22.2		NW			2		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.99	761 7			64.8	18.2	45	SSE	20	8.9			0						The Royal Observatory.
Cardington			29.72	754.9	44.0	6.7		SE					10						John McLaren.
Carlisle			29.62	752.3	41.9	5.5		SE					10			0	0		T. Bell.
Chatham			29.78	756.4	43.1	6.2		SE			4		10					Rainy	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.95	760.7	77.3	25.2		N			1		10						Sgt. W. F. Hopkins
Dartmoor			29.62	752.3	43.8	6.6		S			5		10					Rain & Fog	R. E. Power.
Donaghadee			29.47	748.5	44	6.7		S E			5		10						J. Mac Gowan, Jr.
Dover			29.84	757 9	42	5.6		S			5		7					Rain	J. Costello.
Dublin																			
Durham Observatory			29.69	754.1	35.9	2.2		SSE					10					Rain	G. Goldney.
Eccles, (near Manchester)			29.66	753.4	43.4	6.3		SE	3.6	1.5			10					Rainy & mist	Thomas Mackereth.
Falmouth Observatory			29.50	749 3	51.0	10.6		S	24	10.7			9						The Falmouth Obs.
Fort Napier, (Natal)			29.86	758.4	74.5	23.6		NE			3		10						Pvt. G. Salmon.
Galway			29.16	740.7	44	6.7		SE			5		5						Queen's College.
Gibraltar, (Mediterranean)			30.30	769.6	66.8	19.3		WSW			3		3						Sgt. J. Brewster.
Glasgow Observatory			29.60	751.8	42.0	5.6		ESE			3		10					Mist	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			29.86	758.4	37	2.8		SE			5		8					Mist & Rain.	G. T. Watson.
Greenwich Royal Obs			29.76	755.9	43.4	6.3		SSE			4		10					Rain	The Royal Observatory.
Guernsey			29.61	752.1	50	10.0		SSE			6		8					Light rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.67	753.6	36.5	2.5		ESE					10						Moorside Observatory.
Halifax, (Nova Scotia)			30.19	766.8	30.2	— 1.0		E			2		9					Snowy	Corp'l J. Y. Thompson.
Helston			29.47	748.5	53	11.7		S			6		10					Rainy	W. B. Moyle.
Holyhead			29.47	748.5	51	10.6		SSE			4		3						John Tilston.
Hull Park																			
Kew Observatory			29.74	755.4	44.4	6.9		SE	16	7.2			10					Rain & Mist	The Met. Office.
Kingstown			29.43	747.3	46	7.8		SSE			5		10					Mist	George Mitchell.
Lampeter																			
Leicester			29.68	753.9	41.1	5.1		E			4		10						William J. Harrison
Llandudno			29.54	750.3	49.2	9.6		S					5						Dr. James Nicol.
Malta, (Mediterranean)			30.28	769.1	58.0	14.4		NE			2		4						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.62	752.3	44	6.7		Calm			0		10						William D. Penny.
Nassau, (Bahamas)			30.08	764.0	77.0	25.0		SE			4		7						Surgeon I. Jameson.
North Shields			29.73	755.1	40	4.4		SSE			4		8						John Wm. Irvine.
Nottingham			29.68	7 3.9	42.5	5.8		ESE			2		10		SW			Rain	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.65	753.1	42.0	5.6		ESE			2–3		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			29.67	753.6	46	7.8		SE			3		10						Radcliffe Observatory.
Plymouth			29.54	750.3	50	10.0		SE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.29	744.0	49	9.4		S			6		5					Rainy	W. Kennedy.
Saint Ann's Head			29.45	748.0	47	8.3		SE			5		7						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.72	754.9	39.1	3.9		ESE	40	17.9			10						Rev. Dr. Clouston.
Scarboro'			29.76	755.9	37.2	2.9		SSE			5		10					Rain	F. Heard.
Scutari, (Turkey)			30.09	764.3	35.0	1.7		N			5		10					Snow	W. H. Lyne.
Sheffield			29.70	754.4	39.3	3.5		S			1		10					Rain	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.59	751.6	45.4	7.4		SSE			4		8			0.155	3.96		Francis Redford.
Somerleyton, (Lowestoft)			29.83	757.7	38.1	3.4		SE			2		10					Rain	Rev. C. J. Steward.
Stonyhurst Observatory			29.62	752.3	38.1	3.4		NE			1		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.50	749.3	43	6.1		SE			5		10						John Smith.
Strathfield Turgiss			29.67	753.6	45.0	7.2		S			1–2		10						Charles H. Griffith.
Streatley Vicarage			29.71	754.6	46.0	7.8		SSW			4		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.82	757.4	40	4.4		S			6		10						William Lawrence.
Taunton College																			
Thurso			29.70	754.4	40	4.4		SSE			5		7						John Trotter.
Truro Royal Institution			29.46	748.3	54	12.2		S			7		8						Royal Institution.
Valencia			29.13	739.9	51.0	10.6		SSE	41	18.3			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			29.73	755.1	44.7	7.1		S			6		8						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.35	770.8	33.1	0.6	100	SE			2		10						
Faröe			30.25	768.3	37.6	3.1	64	SE			4		0						
Godthaab, (Greenland)			29.98	761.5	— 9.0	—23.0		NE			2		2						
Stykkisholm, (Iceland)			29.53	750.1	37.4	3.0	79	SE			4		8						
Thorshavn, (Faröe)			29.67	753.6	42.3	5.7	77	SSE			6		10						
Vestervig			30.20	767.0	40.6	4.8	90	SE			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.15	765.9	57.4	14.1	62						2						Normal School.
Alençon			29.84	757.9	51.8	11.0	89	SW			1		10			0.591	15.0		Normal School.
Amiens			29.85	758.1	48.2	9.0	81	SE			4		10			0	0		Normal School.
Beaumette, (near Angers)			29.80	757.0	45.1	7.3	73	S	11.0	4.9			10		SW	0.093	2.3		Beaumette Observatory.
Beauvais			29.93	760.3	46.2	7.9	81	SSE			1		10		S	0	0		Normal School.
Besançon			30.13	765.2	52.0	11.1	56	SSW			3		0			0	0		Normal School.
Bourges			30.00	761.9	44.2	6.8		E			3		8		E	0	0		Normal School.
Brest			29.54	750.2	51.3	10.7	80	SW			6		10		SW	0.060	1.75	Rain	Naval Observatory.
Caen			29.79	756.7	48.7	9.3	83	SE			3		8		S	0.079	2.0		Normal School
Carcassonne																			
Chartres			29.88	758.9	52.0	11.1		S			3		4		S	0	0		Normal School.
Chaumont			30.06	763.6	47.1	8.4		SSE			8		10		S	0	0		Normal School.
Le Mans			29.85	758.3	54.1	12.8		SE			4		2		SW	0.157	4.0		Normal School.
Mirecourt			30.05	763.2	45.7	7.6		NE			4	1		S		0	0		Normal School.
Orleans			29.93	760.3	51.1	10.6	84	SE			2					0	0		Normal School.
Paris			29.93	760.2	46.6	8.1		S			2		10		SW	0	0		National Observatory.
Parthenay			29.88	759.0	54.5	12.5	59	SW			6		5		S	0	0		
La Roche sur Yon			29.83	758.4	55.0	12.8	79	SE			2		5		SE	0.047	1.2		Normal School.
Rouen			29.81	757.9	48.2	9.0	83	S			2		5		S	0	0		Normal School.
Saint Lo			29.79	756.6	54.1	12.3	87	SSE			3		10		SE	0.079	2.0		Normal School.
Villefranche			30.20	767.0	50.9	10.5	80	ESE			4		5		SE	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.91	759.8	80.2	26.8	58	Var.			1		1			0	0		Père Pascall.
Mont-Louis	24.89	632.2			43.7	6.5	81	SSW	37.4	16.7			8		WSW	0	0		—. Faiguère.
Montsouris (near Paris)			29.92	760.0	49.1	9.5	87	S	4.0	1.8			10			0.039	1.0		Marié Davy.
Perpignan	29.99	761.8			57.6	14.2	80	NE	11.2	5.0			6		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			29.93	760.2	48.2	9.0	81	SSE			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.89	759.2	58.3	14.6	66	SW			3		5		SW	0.067	1.7		C. Marquet.
Versailles, (near Paris)			29.91	759.6	49.3	9.6	86	S			4		9			0.030	0.75		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.58	776.8	33.8	1.0	60	E			2		2			0	0		Prof. Hoh.
Berlin			30.36	771.2	36.5	2.5	63	S			1		1			0.268	6.8		Prof. Arndt.
Breslau			30.36	771.2	32.0	0.0	80	SW			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.19	766.8	40.6	4.8	40	NE			1.5		1			0	0		A. Leuz.
Cassel			30.21	767.4	40.1	4.5	76	E			2		0			0	0		Dr. H. Mohl.
Cologne			30.15	765.7	33.1	0.6	95	SSE			3		3			0	0		Dr. Gaithe.
Emden			30.22	767.5	43.2	6.2	34	SE			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.31	769.8	41.7	5.4	46	ESE			2		0			0	0		Physical Society.
Friedrichshafen			30.26	768.7	29.3	— 1.5	90	W					2			0	0		M. Wilhelm.
Hamburg			30.30	769.5	41.9	5.5	40	SE			4		2			0	0		W. Reinart.
Kiel			30.30	769.5	39.7	4.3	58	ESE			4		0			0	0		Prof. G. Karsten.
Königsberg			30.37	771.4	29.8	— 1.2	72	NE			2		0			0	0		Prof. E. Luther.
Köslin			30.32	777.0	32.5	0.3		NE			1		10			0	0		Dr. T gert.
Leipsic			30.33	770.4	31.6	— 0.2	63	ESE			1		0			0	0		Prof. Bruhns.
Münster			30.12	765.1	45.1	7.3	86	SE			2		0			0.327	8.3		Prof. E. Heis.
Posen			30.46	773.7	29.3	— 1.5	95	N			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.19	766.7	39.2	4.0	52	N					2			0.252	6.4		Hartwig and Fulk.
Stuttgart			30.20	767.0	40.6	4.8	58	SE					0			0	0		Mr. Wurth.
Thorn			30.33	770.3	32.2	0.1	91	NW			2		10			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.07	763.8	45.5	7.5	47	E			4		10			0	0		Prof. Flesch.
Wustrow			30.35	771.0	30.7	— 0.7	96	SE			2		10			0	0		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.33	770.3	38.7	3.7	71	SE			2		5	NW		0	0		
Mondovi			30.32	770.1	37.2	2.9	67	NW			2		10	NNW		0	0		
Genoa			30.27	768.8	47.1	8.4	39	NE	6.3	2.8			4			0	0		
Pavia			30.32	770.1	39.0	3.9	64	WNW			1		1	SW		0	0		
Verona			30.28	769.2	40.8	4.9	80	E			1		0			0	0		
Padua			30.28	769.1	39.4	4.1	63	WNW	3.8	1.7			0			0	0		
Parma																			
Bologna			30.35	771.0	38.3	3.5	36	E			4		2	W		0	0		
Livorno			30.26	768.5	47.1	8.4	35	ENE	4.9	2.2			2			0	0		
Urbino			30.34	770.6	33.6	0.9		NNE			2		0			0	0		
Ancona			30.33	770.1	39.2	4.0	65	NW			2		2			0	0		
Siena			30.26	768.7	40.8	4.9	57	SE	0	0			0			0	0		
Rome			30.25	768.4	51.6	10.9	61	S	1.8	0.8			2	S		0	0		
Naples, O.U.			30.26	768.7	50.0	10.0	41	N			4		0			0	0		
Naples, S. R.																			Prof. F. Brioschi.
Lecce			30.22	767.5	39.7	4.3	53	NNW	11.2	5.0			2			0	0		
Cosenza			30.27	768.8	46.8	8.2	70	NNW			4		0			0	0		
Catania, (Sicily)			30.24	768.1	73.8	12.1	72	SE			2		2	E		0	0		
Lipposto																			
Palermo			30.19	766.7	53.1	11.7	59	NE			2		9			0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.97	761.3	40.6	4.8		SE			5								
Groningen			30.06	763.4	39.6	4.2		SE			4								
Helder			30.01	762.2	36.5	2.5		ESE			4								
Utrecht			30.00	762.0	43.7	6.5		SE			4		5						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.15	765.9	35.6	2.0	64	alm	0	0			0			0	0		
Christiania			30.29	769.3	26.6	— 3.0	78	SW	0.7	[illegible].3			3			0	0	Haze	
Tromsö			29.96	761.0	37.0	2.8	93	S			2		9			0.244	6.2		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.84	758.0			58.5	14.7	97	SSW	22.4	10.0			10						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.30	769.7	30.0	— 1.1	94	NW	4	2			10			Blank	Blank	Snow	Astronomical Obs.
Wilna			30.43	772.9	19.9	— 6.7	64	E	4	2			1						Astronomical Obs.
Dorpat			30.57	776.4	9.1	—12.7	64	E	2	1			0						Physical Cabinet.
St. Petersburg			30.5	774.8	5.2	—14.9	73	WSW	2	1			0						Central Physical Obs.
Kieff			30.33	770.3	13.6	—10.2	70	N	16	7			3						Physical Cabinet.
Nikolaiev			30.19	766.8	28.4	— 2.0	84	N	10.1	4.5			9						
Kertch			30.01	762.2	30.6	— 0.8	94	NNW	10.1	4.5			7						Lagorio.
Moscow			30.35	771.0	— 0.9	—18.3	72	NNW	10.1	4.5			5						Meteorological Obs.
Lugan			29.94	760.5	9.3	—12.6	62	NE	20	9			6						Meteorological Obs.
Archangel			29.93	760.1	14.0	—10.0	87	Calm	0	0			8						Ogorodnikof.
Tiflis			29.84	757.9	46.8	8.2	45	NNW	20	9			8						Physical Obs.
Astrakhan			29.91	759.7	9.5	— 1.4	57	WSW	10.1	4.5			10			Blank	Blank	Snow	Sebastianof.
Kasan			29.96	760.9	— 6.2	—21.2	72	N	10.1	4.5			0						Physical Cabinet.
Orenburg			29.75	755.7	10.0	—12.2	93	NE	7.8	3.5			7						Tschernischef.
Ekaterinburg			29.83	757.6	0.0	—17.8	56	Calm	0	0			0						Meteorological Obs.
Kasaly			29.93	760.1	48.0	8.9	87	NW	13	6			10						Bobrof.
Tashkend			29.98	761.6	46.9	8.3	94	NE	7.8	3.5			10			Blank	Blank	Rain	Michelson.
Barnaul			29.74	755.3	27.0	— 2.8	89	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.65	753.2	20.5	— 6.4	75	E	10.1	4.5			0						[illegible]arks.
Irkutsk																			Usolzef.
Oorga			30.14	765.6	19.9	— 6.7	78	Calm	0	0			0						Mossin.
Peking, (China)			29.93	760.1	44.4	6.9	55	S	7.8	3.5			2						Physical Observatory
Nertchinsk			30.26	768.7	— 4.4	—20.2	59	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.17	766.4	57.9	14.4	83	W	13.4	6.0			10			0.028	0.7	Rain	Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.23	767.7	29.1	1.6	84	S			4		0			0	0		Dr. Hildebrandsson.
Hernosand			30.26	768.6	32.0	0.0	60	S			2		0			0	0		
Upsala			30.38	771.6	33.1	0.6	63	SSW			2		0						
Stockholm			30.36	771.2	35.2	1.8	47	SSW			2		0			0	0		
Wisby			30.40	772.1	29.5	— 1.4	100	SE			2		0			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.73	729.8			39.9	4.4	68	NNE			2		9			0	0		The Observatory.
Zurich	28.51	724.1			39.0	3.9	88	W			1		4			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +8.7mm.; Thermometer, −1°.4 C.; Relative Humidity, +22 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.84	758.0	58.5	14.7	78	SW			3		10			Blank	Blank	Rain	
Constantinople			30.08	763.9	33.1	0.6	87	NNE	26.8	12.0			10		NE	Blank	Blank		
Fao, (Persian Gulf)			29.98	761.5	70.2	21.2		NW			3		0						
Salonica			30.09	764.2	59.4	15.2		NE			6		3						
Valona			30.06	763.6	44.2	6.8		NW			3		0						
Varna			30.16	766.0	30.2	— 1.0		N			2		10						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			29.97	761.2	26	— 3.3		Calm	0	0			10			0.40	10.2	Light snow	
Cape Roziere, Quebec			30.25	768.3	17	— 8.3	92	SW	5	2.2		5	5	SW	SW	0	0		
Chatham, N. B.			30.24	768.1	16	— 8.9	91	N	1	0.4		Haze	Haze			0	0		
Charlottetown, P. E. Island			30.27	768.8	21	— 6.1	100	S	9	4.0			10			0	0		
Father Point, Quebec			30.43	772.9	9	—12.8	59	SW	8	3.6		2	0	S		0	0		
Fort Garry, Manitoba			30.30	769.6	2	—16.7	97	NW	6	2.7		5	5	W	W	0.03	0.8		
Halifax, N. S.			30.13	765.3	30	— 1.1	93	SE	7	3.6			10			Blank	Blank	Light snow	
Kingston, Ontario			29.94	760.5	30	— 1.1	83	S	6	2.7			10		S	0.13	3.3	Light snow	
Montreal, Quebec			29.98	761.5	25	— 3.9	96	SE	7	3.6			Haze			0.02	0.5		
Ottawa, Ontario			29.96	761.0	22	— 5.6	65	NE	6	2.7			Fog			0.40	10.0	Light snow	
Parry Sound, Ontario			29.92	760.0	21	— 6.1	85	N	9	4.0			10		N	Blank	Blank	Light snow	
Port Dover, Ontario			29.94	760.5	32	0.0	90	W	11	4.9			10			0.19	4.8	Threatening	
Port Stanley, Ontario			30.00	762.0	27	— 2.8	87	NW	15	6.7			10		N	0.12	3.0		
Quebec, Quebec			30.07	763.8	22	— 5.6	86	NE			1		10		NE	0	0		
Saugeen, Ontario			29.96	761.0	21	— 6.1	93	N	11	4.9			10			0.17	4.3	Light snow	
Stayner			29.92	760.0	23	— 5.0	93	NW	8	3.6			10		NW	0.32	8.1		
Sydney, C. B.			30.32	770.1	14	—10.0	93	Calm	0	0		8	Sm'y	NW		0	0		
Toronto, Ontario			29.91	759.7	32	0.0	98	W	9	4.0			10			0.38	9.7		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Byt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.01	762.2	31	— 0.6	89	S	6	2.7			10			0.08	2.0	Threatening	
Alpena, Mich.			30.04	763.0	15	— 9.4	82	NW	5	2.2		5	0	W		0.08	2.0		
Atlantic City, N. J.			30.04	763.0	35	1.7	100	NW	10	4.5			Fog			0.43	10.9	Fog	
Augusta, Ga.			30.10	764.5	42	5.6	91	NW	3	1.3			10		NW	0.66	16.8	Heavy rain	
Baltimore, Md.			30.08	764.0	35	1.7	90	NW	3	1.3			10			0.33	8.4		
Barnegat, N. J.			29.98	761.5	35	1.7	100	S	5	2.2			10		W	0.27	6.9	Threatenin	
Benton, Montana			29.97	761.2	22	— 5.6	85	SW	2	0.9		0	0			0	0		
Bismarck, Dakota			30.19	766.8	— 5	—20.6	26	NE	2	0.9		2	0			0.13	3.3		
Boston, Mass.			30.09	764.3	30	— 1.1	95	NE	3	1.3			10			0.08	2.0	Threatening	
Breckenridge, Minn.			30.32	770.1	4	—15.6	100	NW	4	1.8			10			0.02	0.5	Light snow	
Buffalo, N. Y.			29.90	759.5	34	1.1	89	SW	12	5.4			Haze			0.05	1.3		
Burlington, Vt.			30.00	762.0	32	0.0	79	S	8	3.6			10			0	0		
Cairo, Ill.			30.16	766.1	32	0.0	79	NE	12	5.4			10		NE	0.06	1.5		
Cape Hatteras, N. C.			30.02	762.5	46	7.8	92	N	10	4.5			10		N	0.99	25.1		
Cape Henry, Va.			30.08	764.0	39	3.9	91	N	17	7.6			10		N	0.83	20.8		
Cape May, N. J.			30.04	763.0	36	2.2	100	NW	8	3.6			Fog			0	0	Fog	
Charleston, S. C.			30.05	763.3	47	8.3	92	NE	4	1.8			10			0.56	14.2		
Cheyenne, W. T.			30.00	762.0	16	— 8.9	52	W	8	3.6		0	0			0	0		
Chicago, Ill.			30.17	766.3	22	— 5.6	86	NW	3	1.3			10			0.11	2.8		
Cincinnati, Ohio			30.08	764.0	39	3.9	71	NW	6	2.7			10		W	0	0		
Cleveland, Ohio			30.01	762.2	28	— 2.2	94	W	14	6.3			10		W	0.08	2.0		
Colorado Springs, Col.			30.03	762.8	10	—11.2	58	N	3	1.8		0	0			0	0		
Corsicana, Texas			30.00	762.0	36	2.2	98	N	19	8.5			10			0.20	5.1	Heavy rain	
Davenport, Iowa			30.23	767.8	20	— 6.7	85	Calm	0	0		0	2			0	0		
Denver, Col.			30.11	764.8	13	—10.6	81	S	5	2.2		0	0			0	0		
Detroit, Mich.			30.04	763.0	26	— 3.3	83	NW	8	3.6			10			0.09	2.3		
Dodge City, Kansas			30.05	763.3	20	— 6.7	85	N	8	3.6			10			0	0		
Dubuque, Iowa			30.23	767.8	11	—11.7	80	Calm	0	0			Fog			0	0		
Duluth, Minn.			30.21	767.3	0	—17.8	69	NW	4	2.2		0	0			0	0		
Eastport, Me.			30.16	766.1	29	— 1.7	89	E	9	4.0			10			0.08	2.0		
Erie, Penn.			29.95	760.7	33	0.6	89	W	20	8.9			10			0	0		
Escanaba, Mich.			30.15	765.8	11	—11.8	61	NW	3	1.3			Fog			0	0		
Fort Gibson, I. T.			30.12	765.0	31	— 0.6	68	N	12	5.4			10		N	0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.41	772.4	1	—17.2	71	NW	1	0.4			2		NE	0.02	0.5		
Galveston, Texas			29.82	757.2	61	16.1	94	NW	5	2.2			Fog			0	0		
Grand Haven, Mich.			30.12	765.0	25	— 3.3	88	N	7	3.1			10			0	0		
Indianapolis, Ind.			30.13	765.3	28	— 2.2	76	NW	8	3.6			10		NW	0.06	1.5		
Indianola, Texas			29.88	758.9	62	16.7	97	NW	12	5.4		2	8	SW	NW	0	0		
Jacksonville, Fla.			29.99	761.7	67	19.4	90	Calm	0	0			10			0	0		
Keokuk, Iowa			30.18	766.6	24	— 4.4	74	NW	8	3.6			10			0	0		
Key West, Fla.			30.01	762.2	76	24.4	72	SE	11	4.9		2	Haze	SE		0	0		
Kittyhawk, N. C.			30.05	763.3	40	4.4	83	NW					10		NE	0.57	14.5		
Knoxville, Tenn.			30.02	762.5	45	7.2	92	S	3	1.3			10			0.01	0.3		
La Crosse, Wis.			30.21	767.3	10	—12.2	79	SW	1	0.4		Haze	Haze			0.15	3.8		
Leavenworth, Kan.			30.29	769.3	23	— 5.0	79	N	2	1.9		0	2		NE	0	0		
Lexington, Ky.			30.09	764.8	37	2.8	90	NW	5	2.2			Fog			0	0	Fog	
Long Branch, N. J.			30.08	764.0	34	1.1	85	N	6	2.7			10			0.20	5.1		
Louisville, Ky.			30.11	764.8	36	2.2	80	Calm	0	0			10			0	0		
Lynchburg, Va.			30.09	764.3	36	2.2	85	SW	3	1.3		10	0	W	W	0.17	4.3		
Malone, N. Y.																			
Marquette, Mich.			30.16	766.1	9	—12.8	57	W	8	3.6		0	0			0	0		
Memphis, Tenn.			30.06	763.5	40	4.4	82	NE	8	3.6			10		NE	0	0		
Milwaukee, Wisconsin			30.20	767.1	16	— 8.9	66	NW	6	2.7		Haze	Fog			0.47	11.9		
Mobile, Ala.			29.93	760.2	58	14.4	93	NE	3	1.3			10		NE	Blank	Blank	Light rain	
Montgomery, Ala.			30.00	762.0	51	10.6	93	E	6	2.7			10		E	0.13	3.3	Threatening	
Morgantown, W. Virginia			30.01	762.2	41	5.0	73	S	2	0.9		0	Haze			0	0		
Mt. Washington, N. H.			29.90	759.4	20	— 6.7	100	NW	18	8.0			Fog			0.16	4.1		
Nashville, Tenn.			30.04	763.0	42	5.6	83		2	0.9		5	5	N		0	0		
New Haven, Conn.			30.11	764.8	28	— 2.2	77	N	6	2.7			10		NE	0.14	3.5		
New London, Conn.			30.09	764.3	32	0.0	90	N	4	1.8			10			0.27	6.9	Light rain	
New Orleans, La.			29.86	758.4	60	15.6	94	E	7	3.1			10		E	0.69	17.5	Light rain	
Newport, R. I.																			
New York, N. Y.			30.08	764.0	31	— 0.6	89	NE	8	3.6			10			0.27	6.9		
Norfolk, Va.			30.07	763.8	37	2.8	95	NW	11	4.9			Fog			0.37	9.4	Fog	
North Platte, Neb.			30.02	762.5	22	— 5.6	72	NW	3	1.3			10			0.02	0.5		
Omaha, Neb.			30.35	770.9	13	—10.6	90	NW	7	3.1		2	0			0	0		
Oswego, N. Y.			29.93	760.2	33	0.6	94	S	7	3.1			10			0.06	1.5	Threatening	
Peck's Beach			30.05	763.3	36	2.2	90	N	12	5.4			Fog			0.56	14.2	Fog	
Pembina, D. T.			30.13	769.6	— 3	—19.4	66	NW	4	1.8		2	2			0	0		
Philadelphia, Penn.			30.09	764.3	31	— 0.6	95	NE	7	3.1			10		NE	0.20	5.1		
Pike's Peak, C. T.			29.66	753.4	—13	—25.0	100	N	18	8.0		0	0			0	0		
Pittsburgh, Penn.			30.01	762.2	38	3.3	71	SW	6	2.7		10	0	W		0	0		
Port Huron, Mich.			30.04	763.0	23	— 5.0	86	NW	7	3.1			10			0.08	2.0		
Portland, Maine			30.13	765.3	26	— 3.3	76	N	5	2.2			Fog			0.01	0.3	Fog	
Portland, Or.			30.04	763.0	44	6.7	91	Calm	0	0			10			0.49	12.4	Light rain	
Punta Rassa, Fla.			30.05	763.3	72	22.2	85	E	4	1.8		0	2		SE	0	0		
Rochester, N. Y.			29.88	758.9	35	1.7	80	SW	2	0.9			10			0.01	0.3		
Salt Lake City, Utah			30.25	768.3	20	— 6.7	55	SW	2	0.9		0	0			0	0		
Sandy Hook, N. J.			30.06	763.5	31	— 0.6	95	NE	6	2.7			10		NE	0.32	8.1	Threatening	
San Diego, Cal.			30.16	766.3	49	9.4	77	NE	9	4.0		0	0			0	0		
San Francisco, Cal.			30.24	768.1	47	8.3	88	W	4	1.8			10			0	0		
Santa Fe, N. M.			29.78	756.4	6	—14.4	64	W	4	1.8		2	2		NW	0.05	1.3		
Savannah, Georgia			30.02	762.5	49	9.4	100	N	6	2.7			Fog			0.02	0.5	Fog	
Shreveport, La.			29.89	759.2	54	12.2	86	E	8	3.6			10		E	0	0		
Springfield, Mass.			30.09	764.3	29	— 1.7	89	Calm	0	0			10			0.11	2.8		
St. Louis, Mo.			30.11	764.8	31	— 0.6	78		8	3.6			10		N	0	0		
St. Marks, Fla.			29.93	760.2	67	19.4	94	S	4	1.8			10		S	1.04	26.4		
St. Paul, Minn.			30.21	767.3	2	—16.7	72	Calm	0	0		0	Fog			0	0		
St. Paul's Island, Alaska			29.07	738.4	33	0.6	70	SSW	13	5.8		0	0			0.48	12.2		
Squan Branch, N. J.			30.07	763.8	33	0.6	90	N	4	1.8			Fog			0.55	14.0	Fog	
Toledo, Ohio			29.99	761.7	31	— 0.6	68	W	7	3.1			10		W	0.02	0.5		
Tybee Island, Ga.			30.06	763.5	50	10.0	100	NW	16	7.2			10		N	0.05	1.3	Light rain	
Vicksburg, Miss.			29.97	761.0	51	10.6	93	NE	5	2.2		Haze	Fog			0	0	Fog	
Virginia City, Mon.			29.80	756.9	13	—10.6	79	Calm	0	0			10			0	0		
Washington, D. C.			30.10	764.5	33	0.6	89	NW	4	1.8			10		W	0.29	7.4		
Wilmington, N. C.			30.06	763.5	41	5.0	91	N	8	3.6			10		NE	0.46	11.7		
Wood's Hole, Mass.			30.08	764.0	35	1.7	70	NE	3	1.3			10			0.29	7.4		
Wytheville, Va.			29.92	760.0	32	0.0	79	Calm	0	0			10			0	0	Fog	
Yankton, D. T.			30.38	771.6	15	— 9.4	82	NW	9	4.0			10		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.			30.04	763.0	79	26.1		E	9	4		0	5			0	0		
Point-a-pitre, Guadeloupe, "			29.97	761.2	72	22.2		E				0	5			0.8	20.3		
Havana, Cuba, W. I.			29.79	756.7	74	23.3	85	>	4	1.8		0	0			0	0		
Kingston, Jamaica, W. I.			30.22	767.6	74	23.3	9	Calm	0	0		2	0	S		0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.93	760.2	73	22.8	76	N	5	2.2		0	0			0	0		
St. Georges, Bermudas			30.20	767.1	62	16.7	75	Calm	0	0		1	5			0	0		
Honolulu, Oahu, S. I.			30.17	766.3	64	17.8		NE			2		10		NE	0	0	Threatening	
Makawao, Maui, S. I.			29.98	761.5	58	14.4	76	E	1.2	0.5		10	3			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.47	773.9	—19	—28.3		N				8	0	SW		0	0		
Clifton, Jamaica, W. I.			30.10	766.8	59	15.0		N	2	0.9						0	0		C. Partridge.
St. Johns, Newfoundland			30.50	774.7	14	—10.0	100	SE					Sm'e			0	0		John Delaney.
St. Johns Porto Rico W. I.			30.09	764.3	77.0	25.0	68	NE			3	3	5	W		0.041	1.05		Leon M. Acuña.
Ellyria, Ohio	29.20	741.7			28	— 2.2	72	NW	8	3.6		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.40	746.7			8	—13.3		SW				0	0			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —19° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 7, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.45	773.4															Charnot.
Algiers			30.42	772.6	69.4	20.8	51	NW			1		0			0	0		Peter.
La Calle			30.34	770.6															Kuntz.
Tunis			30.32	770.1	69.8	21.0	46	WNW			3		7			0	0		Jacques.
Sfax			30.37	771.5															Chauvey.
Saida			30.45	773.5	68.5	20.3		WNW			1		0			0	0		Grosjean.
Tebessa			30.41	772.4															Colin.
Geriville			30.47	774.0	64.4	18.0		W			1		0			0	0		Bernadach.
Laghouat			30.48	774.1	73.0	22.8	22	N			2		2			0	0		Poinsignon.
Biskra			30.41	772.5	79.5	26.4	20	NW			2		0			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.42	772.6	30.4	— 0.9	83	SW			1		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.44	773.2	29.7	— 1.3	76	NE			2		0			0.008	0.2		I. R. Observatory.
Eperies			30.42	772.7	34.7	1.5	72	Calm			0		5			0	0		Julius Mikolik.
Gratz			30.39	772.0	32.5	0.3	74	SSW			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			30.42	772.7	31.5	— 0.3	74	ESE			1		3			0.010	0.25		Prof. Reissenberger.
Kremsmünster			30.33	770.3	30.9	— .6	73	NE			1		8			0.150	3.8		Prof. C. Wagner.
Lemberg			30.53	775.5	20.5	— 6.4	79	S			4		1			0.043	1.1		Dr. T. Stanecki.
Nyiregyhaza			30.46	773.7	32.7	0.4	89	Calm			0		3			0	0		Habesuda Daniel.
Pola			30.30	769.6	43.5	6.4	73	WNW			2		10			0	0		I. R. Hydrographic Of'ce
Szegedin			30.34	773.2	28.8	— 1.8	88	SW			1		3			0.020	0.50		Karl Stancel.
Trieste			30.30	769.7	42.6	5.9	63	NW			0		9						Prof. V. Farolfi.
Vienna			30.39	771.8	31.6	— 0.2	65	SE			2		1			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	20.86	758.5			54.3	12.4	83	SW			1		10		WSW	0.187	4.75		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.45	748.0	46.2	7.9		S	17	7.6			7			0.710	18.03		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.47	748.5				SW			3		7					Rainy	William McNeil.
Armagh Observatory			29.55	750.6	52.2	11.2		SW	23	10.3									Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			29.68	753.9	54.1	12.3		SW			5		9						The Liverpool Obs.
Birr Castle			29.62	752.3	54.8	12.7		SW			1		10						J. Dreyer.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.85	758.2	56.0	13.3		SW			3		10						H. Todd.
Cape Town, Cape Colony			30.00	762.0	72.4	22.4		NW			3		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.04	763.0			61.9	16.6	42	S	30	13.4			1						The Royal Observatory.
Cardington			29.86	758.4	56.0	13.4		S					9						John McLaren.
Carlisle			29.60	751.8	53.3	11.8		W					2			0.09	2.3		T. Bell.
Chatham			30.01	762.2	54.1	12.3		SW			4		10			Blank	Blank	Mist	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.97	761 2	77.8	25.3		NE			2		6						Sgt. W. F. Hopkins
Dartmoor			29.92	760.0	47.0	8.3		SW			7		10			Blank	Blank	Fog & Rain.	R. E. Power.
Donaghadee			29.52	749.8	49	9.4		SW			5		6						J. Mac Gowan, Jr.
Dover			29.98	761.5	46	7.8		SSW			5		9						J. Costello.
Dublin																			
Durham Observatory			29.58	751.3	51.8	11.0		SW					10						G. Goldney.
Eccles, (near Manchester)			29.70	754.4	54.0	12.2		SW	7.4	3.4			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.88	758.9	51.8	11.0		SW	24	10.7			10					Rain & fog	The Fa mouth Obs.
Fort Napier, (Natal)			29.92	760.0	66.6	19.2		SE			4		10						Pvt. G. Salmon.
Galway			29.53	750.0	51	10.6		SW			3		5						Queen's College.
Gibraltar, (Mediterranean)			30.39	771.9	69.2	20.7		ENE			2		0						Sgt. J. Brewster.
Glasgow Observatory			29.47	748.5	50.0	10.0		SW			4		10						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.85	758.2	54	12.2		SW			4		7					Mist	G. T. Watson.
Greenwich Royal Obs			29.92	760.0	53.7	12.1		SW			4		10						The Royal Observatory.
Guernsey			30.00	762.0	52	11.1		SSW			6		10					Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs								SW					8					Rain	Moorside Observatory.
Halifax, (Nova Scotia)			29.93	760.2	30.4	— 0.9		NE			1		10					Mist	Corp'l J. Y. Thompson.
Helston			29.84	757.9	51	10.6		SW			6		10					Mist	W. B. Moyle.
Holyhead			29.67	753.6	50	10.0		SSW			4		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.91	759.7	53.8	12.1		SSW	26	11.6			10						The Met. Office.
Kingstown			29.52	749.8	52	11.1		SW			3		9						George Mitchell.
Lampeter																			
Leicester			29.80	756.9	55.0	12.8		SW			3		10					Mist	William J. Harrison
Llandudno			29.67	753.6	52.3	11.3		SSW					8						Dr. James Nicol.
Malta, (Mediterranean)			30.38	771 6	60.8	16.0		NE			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.36	745.7	50	10.0		SW			1		8						William D. Penny.
Nassau, (Bahamas)			30.03	762.7	76.6	24.8		SE			5		8						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.77	756.1	56.2	13.2		SSW			5		7		SW			Solar halo	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			29.79	756.7	52.1	11.2		S			4		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			29.84	757.9	56	13.3		SSW			2		10						Radcliffe Observatory.
Plymouth			29.88	758.9	50	10.0		SW			3		10					Rain & fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Rochie's Point			29.68	753.9	50	10.0		SW			4		10						W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29 37	746.0	45.1	7.3		S	16	7.2			5						Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			30.32	770.1	34.6	1.4		NNE			5		9					Snowy	W. H. Lyne.
Sheffield			29.71	754.6	55.9	13.3		WS			4		5						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.55	750.6	52.3	11.3		SW			6		5			0.190	4.79		Francis Redford.
Somerleyton, (Lowestoft)			29.85	758 2	55.3	12.9		SSW			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.68	753.9	51.5	10.8		SW			3		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.28	743 7	46	7.8		SSW			4		10					Rain	John Smith.
Strathfield Turgiss			29.90	759.4	54.0	12.2		SW			1		10						Charles H. Griffith.
Streatley V carage																			Rev. John Slatter.
Sumburgh Head, Shetland			29.40	746.7	43	6.1		S			7		10						William Lawrence.
Taunton College																			
Thurso			29.35	745.5	48	8.9		S			2		6						John Trotter.
Truro, Royal Institution			29.81	757.2	53	11.7		SW			6		10					Rain	Royal Institution.
Valencia			29.61	752.1	51.2	10.7		SSW	29	13.0			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.16	766.1	32.7	0.4	85	SE			6		5						
Fanöe			30.00	762.2	33.1	0.6	85	S			6		10						
Godthaab, (Greenland)			29.77	756.1	-10.5	—23.6		NE			2		2						
Stykkisholm, (Iceland)			29.04	737.6	40.5	4.7	83	SE			4		10					Snow	
Thorshavn, (Faröe)			29.28	743.8	43.3	6.3	93	ESE			4		10						
Vestervig			29.96	761.0	32.7	0.4	90	SE			6		10					Rain	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			30.25	768.4	56.8	13.8	64						10						Normal School.
Alençon			30.15	765.7	55.4	13.0	79	SW			1		10			0.059	1.5		Normal School.
Amiens			30.08?	764.1?	55.9	13.2	78	SSW			3		5			0.043	11.0		Normal School.
Beaumette, (near Angers)			30.18	766.5	55.9	13.2	93	SW	6.3	2.8			10		SW	0.126	3.2	Rain	Beaumette Observatory.
Beauvais			30.13	765.2	57.7	14.3	72	SW			2		10		WSW	0.413	10.50		Normal School.
Besançon			30.20	769.4	56.8	13.8	71	SSW			3		8		SW	0.319	8.1		Normal School.
Bourges			30.28	769.1	48.2	9.0		W			3		10		W	0.087	2.2		Normal School.
Brest			29.98	761.5	54.7	11.5	93	SW			3					0.059	1.50	Fog, Lt. rain	Naval Observatory.
Caen			30.07	763.8	53.2	11.8	76	SSW			4		5		WSW	0.902	22.9		Normal School
Carcassonne																			
Chartres			30.11?	764.8?	50.4	10.2		SSW			3		9		SSW	0.217	5.5		Normal School.
Chaumont			30.27	768.9	53.8	12.1		SSW			2		10		SSW	0.256	6.5		Normal School.
Le Mans			30.17	766.3	55.9	13.3	80	S			2		5		NW	0.236	6.0		Normal School.
Mirecourt			30.13	765.3	46.6	8.1		SW			4		10		SE	0	0		Normal School.
Orleans			30.15?	765.8?	55.0	12.8	79	SW			2		10		W	0.181	4.6		Normal School.
Paris			30.16	766.0	56.7	13.7		SW			3		10		SW	0.214	5.42	Rainy	National Observatory.
Parthenay			30.24	768.0	54.5	12.5	95	SW			6		10			0.299	7.6		
La Roche sur Yon			30.24	768.0	55.8	13.2	98	SW			4				S	0.157	4.0	Mist	Normal School.
Rouen			30.08	764.1	57.7	14.2	74	SSW			2		10		W	0.409	10.4		Normal School.
Saint Lo			30.08	763.9	56.5	13.6	77	W			3		10		W	0.335	8.5		Normal School.
Villefranche			30.32	770.0	58.6	10.9	85	SE			2		10		SE	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Humidity.	Winds. Direction.	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper	Clouds. Direction. Lower	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather	Observer.
Gorée, (Senegambia)			29.91	759.6	82.9	28.3	40	Var.			1		0			0	0		Père Pascall.
Mont-Louis	25.17	639.3			52.0	11.1	55	SSW	9.4	4.2			4		WSW	0	0		—, Falguère.
Montsouris (near Paris)			30.16	766.0	56.3	13.5	80	SW	6.0	2.7			10		SSW	0.189	4.8	Rain	Morié Davy.
Perpignan	30.21	767.4			62.2	16.8	78	E	5.6	2.5			2		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.16	766.1	56.5	13.6	74	SW			3		10			0.146	3.7		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.21	767.4	59.5	15.3	65	SW			3		10		W	0.083	2.1		C. Marquet.
Versailles, (near Paris)			30.15	765.8	55.8	13.2	79	SW			3		10			0.177	4.5		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			H. L. Lee.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Humidity.	Winds. Direction.	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper	Clouds. Direction. Lower	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather	Observer.
Bamberg			30.23	767.9	31.8	— 0.1	96	SW			2		10			0	0	Rain	Prof. Hoh.
Berlin			30.25	768.4	38.7	3.7	65	SE			1		5			0.055	1.4		Prof. Arndt.
Breslau			30.37	771.4	34.5	1.4	66	SSE			6		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.21	767.4	50.2	10.1	81	SW			2		10			0.177	4.5		A. Leuz.
Cassel			30.16	766.1	36.5	2.5	84	S			0		10			0	0		Dr. H. Mohl.
Cologne			30.13	765.1	40.5	9.7	90	S			1		5			0.449	11.4	Rain	Dr. Gaithe.
Emden			30.11	764.7	43.5	6.4	97	SE			0.5		10			0.232	5.9		Prof. Prestel.
Frankfort on the Main			30.32	770.1	38.7	3.7	96	S			0		10			0.307	7.8	Fog	Physical Society.
Friedrichshafen			30.30	769.7	39.2	4.0	92	E					8			0.228	5.8		M. Wilhelm.
Hamburg			30.13	765.2	36.0	2.2	63	SSE			5		10					Rainy	W. Reinart.
Kiel			30.11	764.7	38.8	3.8	83	SSE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.45	773.3	31.6	— 0.2	94	NE			2		1			0	0		Prof. E. Luther.
Köslin			30.55	776.0	36.5	2.5		NE			4		2			0	0		Dr. Tägert.
Leipsic			30.21	767.4	38.5	3.6	60	SE			2		8			0	0		Prof. Bruhns.
Münster			30.08	763.8	40.1	9.5	97	S			2		10			0.319	8.1		Prof. E. Heis.
Posen			30.42	772.7	34.0	1.6	77	SE			3.4		1			0	0		Dr. Mager er.
Strassburg, (in Alsace)			30.23	767.7	53.4	11.9	75	S					8			0.051	1.3		Hartwig and Fulk.
Stuttgart			30.27	768.8	50.9	10.5	72	W					8			0.240	6.2	Rain	Mr. Wurth.
Thorn			30.41	772.5	34.7	1.5	73	SE			4		1			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.12	765.0	52.0	11.1	82	SW			3		10			0.394	10.0		Prof. Flesch.
Wustrow			30.17	766.3	35.1	1.7	67	SSE			4		3			0	0		E. F. [illegible]chutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of Professor Giovanni Cantoni, Director of the Central Italian Meteorological Bureau, and Prof. F. Brioschi, Director of the Astronomical Observatory at Naples.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Humidity.	Winds. Direction.	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper	Clouds. Direction. Lower	Rain-fall. Inches.	Rain-fall. Millimeters.	Weather	Observer.
Mon alieri			30.3	769.7	36.7	2.6	86	ESE			2		2			0	0		
Mondovi			30.27	768.9	41.5	5.3	46	NW			2		1	NNW		0	0		
Genoa			30.31	769.8	47.7	8.7	56		0	0			8	SW		0	0		
avia			30.30	769.6	41.7	5.4	59	W			1		6			0	0		
Verona			30.28	769.2	49.3	9.6	71	E			2		0			0	0		
Padua			30.21	769.8	37.6	3.1	78	NW	1.8	0.8			10			0	0		
Parma																			
Bologna			29.95	77[illegible].8	43.2	6.2	42	WSW			4		0			0	0		
Livorno			30.32	770.0	43.0	6.6	64	NE	11.2	5.0			10			0	0		
Urb no			30.33	770.4	39.0	3.9		NE			2		5			0	0		
Anco a			30.41	772.4	39.6	4.2	66				2		2			0	0		
Siena			30.33	770.4	41.5	5.3	68	SSE	0	0			10	W		0	0		
Rome			30.32	770.2	55.4	13.0	47	E×E	1.3	0.6			10			0	0		
Naples, O.U.			30.34	770.6	55.4	13.0	58	S			2		6	SW		0	0		
Naples, S. R.																			
Lecce			30.35	771.0	48.9	9.4	60	WNW	11.9	5.3			3			0	0		Prof. F. Brioschi.
Cosenza			30.33	770.3	51.8	10.7	63	NW			2		6	SE		0	0		
Catania, (Sicily)			30.38	771.6	53.8	12.1	60	E			2		0	N		0	0		
[illegible]posto																			
Palermo			30.28	769.0	55.6	13.1	65	NE			2		10			0	0		

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.04	763.1	51.8	11.0		W			5								
Groningen			29.93	760.2	46.4	8.0		S			3								
Helder			29.93	760.1	44.2	6.8		SSW			5								
Utrecht			29.97	761.3	52.3	11.3		SW			4		8						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.77	756.2	43.3	6.3	35	S	15.7	7.0			10			0.203	5.4		
Christiania			30.21	767.4	27.0	— 2.8	83	SSE	4.9	2.2			10			0	0		
Tromsö			29.98	761.5	34.7	1.5	95	Calm			0		10			0	0	Fog.	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	30.08	763.9			61.0	16.1	92	SW	3.8	1.7			9						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.47	773.8	30.6	— 0.8	85	SE	4	2			0						Astronomical Obs.
Wilna			30.56	776.2	20.7	— 6.3	64	S	10.1	4.5			1						Astronomical Obs.
Dorpat			30.38	771.7	16.0	— 8.9	58	WSW	13	6			4						Physical Cabinet.
St. Petersburg			30.17	766.2	21.0	— 6.1	63	WSW	16	7			8						Central Physical Obs.
Kieff			30.75	781.1	8.2	—13.2	60	WSW	4	2			1						Physical Cabinet.
Nikolaiev			30.78	781.8	7.5	—13.6	75	NE	10.1	4.5			0						
Kertch			30.54	775.7	12.4	—10.9	56	NE	16.8	7.5			6						Lagorio.
Moscow			30.29	769.4	13.5	—10.3	70	WNW	16.8	7.5			8						Meteorological Obs.
Lugan			30.45	773.4	3.7	—15.7	62	WNW	13	6			0						Meteorological Obs.
Archangel			29.72	754.8	25.9	— 3.4	87	WNW	20	9			10						Ogorodnikof.
Tiflis			30.02	762.6	37.4	3.0	58	N	20	9			9						Physical Obs.
Astrakhan			30.40	772.2	8.6	—13.0	45	NW	10.1	4.5			2						Sebastianof.
Kasan			29.74	755.3	3.6	—15.8	81	WSW	7.8	3.5			10						Physical Cabinet.
Orenburg			29.79	756.6	— 4.0	—20.0	86	NE	4	2			10						Tschernischef.
Ekaterinburg			29.86	758.4	— 4.0	—20.0	86	W	4	2			0						Meteorological Obs.
Kasaly			30.12	765.1	44.6	7.0	84	Calm	0	0			3						Bobrof.
Tashkend			30.14	765.6	38.5	3.6	87	NW	7.8	3.5			10			Blank	Blank	Rain	Michelson.
Barnaul			29.81	757.1	29.7	— 1.3	84	SW	4	2			4						Meteorological Obs.
Yeniseisk			29.35	745.6	23.5	— 4.7	87	E	13	6			10			Blank	Blank	Snow	Marks.
Irkutsk																			Usolzef.
Oorga			30.30	769.5	3.6	—15.8	100	Calm	0	0			0						Mossin.
Peking, (China)			30.20	767.1	44.2	6.8	46	SSW	7.8	3.5			0						Physical Observatory.
Nertchinsk			29.98	761.5	— 4.8	15.1	82	SW	4	2			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.05	763.3	62.6	17.0	67	W	6.7	3.0		4	2		W	0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.00	761.0	34.2	1.2	75	NW			2		2			0	0		Dr. Hildebrandsson.
Hernosand			30.04	762.9	32.4	0.2	71	NE			2		2			0	0		
Upsala			30.21	767.3	24.4	— 4.2	82	SW			4		9	SW					
Stockholm			30.20	767.0	27.1	— 2.7	89	SW			4		8			0.012	0.3		
Wisby			29.96	771.0	31.6	— 0.2	100	W			2		10			0	0		

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	29.01	736.8			64.0	17.8	54	W			2		5			0.102	2.6		The Observatory.
Zurich	28.61	726.7			50.0	10.0	89	SE			1		8			0.394	10.0	Rain	The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +11.8mm.; Thermometer, +11°.2 C.; Relative Humidity, — 9 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.30	769.7	32.2	0.1	85	N	26.8	12.0			10		NNE	Blank	Blank		
Fao, (Persian Gulf)			30.10	764.5	68.0	20.0		SE			3		0						
Salonica			30.30	769.5	48.2	9.0		N			1		5						
Valona			30.19	766.8	51.4	10.8		NW			2		0						
Varna			30.70	780.0	35.6	2.0		NE			4		2						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Brockville			30.14	765.5	24	— 4.4		Calm	0	0			10			0.15	3.8	Light snow	
Cape Roziere, Quebec			30.04	763.0			92	NE	3	1.3		5	5	NE		0	0		
Chatham, N. B.			30.62	762.5	16	— 8.9	91	N	3	1.3		2	0			0.22	5.6		
Charlottetown, P. E. Island			29.96	761.0	25	— 3.9	98	N	7	3.1			10			0.145	3.78		
Father Point, Quebec			30.03	762.7	10	—12.2	93	NE	4	1.8			10			0.05	1.3	Light snow	
Fort Garry, Manitoba			30.07	763.8	— 4	—20.0	97	S				2	5	NW	NW	0	0		
Halifax, N. S.			29.86	758.4	31	— 0.6	69	NE	7	3.6			10			0.04	1.0		
Kingston, Ontario			30.13	765.3	25	— 3.9	83	NE	1	0.4			10			0	0		
Montreal, Quebec			30.05	763.3	25	— 3.9	98	Calm	0	0			10			0.08	2.0	Light snow	
Ottawa, Ontario			30.08	764.0	20	— 6.7	72	N	8	3.6		5	2	N	N	0.15	3.8		
Parry Sound, Ontario			30.15	765.8	— 3	—19.4	76	NE	6	2.7		0	0			0	0		
Port Dover, Ontario			30.12	765.0	12	—11.1	100	NW	6	2.7		10	0	NW		0	0		
Port Stanley, Ontario			30.10	765.0	8	—13.3	91	NW	12	5.4		5	0	W		0	0		
Quebec, Quebec			30.03	762.7	23	— 5.0	86	N			1		10			0.10	2.5		
Saugeen, Ontario			30.13	765.3	— 1	—18.3	94	Calm	0	0			Fog			0	0	Fog	
Stayner																			
Sydney, C. B.			29.93	760.2	37	2.8	95	NE	5	2.2			10		NE	0	0		
Toronto, Ontario			30.10	764.5	23	— 5.0	92	W	6	2.7			10			0	0		

NOTE.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.06	763.5	29	— 1.7	89	Calm	0	0			10			0	0		
Alpena, Mich.			30.10	764.5	6	—14.4	76	W	2	0.9		0	0			0	0		
Atlantic City, N. J.			30.00	761.9	34	1.1	90	NE	20	8.9			10		S	0	0	Threatening	
Augusta, Ga.			29.55	750.6	53	11.7	100	S	9	4.0			10			1.42	36.1	Heavy rain.	
Baltimore, Md.			30.00	762.0	36	2.0	80	E	5	2.2			10			Blank	Blank	Light snow.	
Barnegat, N. J.			29.98	761.5	33	0.6	89	NE	16	7.2			10		N	0	0		
Benton, Montana			29.76	755.9	31	— 0.6	79	SW	4	1.8		2	0			0	0		
Bismarck, Dakota			29.76	755.9	5	—15.0	54	NE	1	0.4			10			0	0		
Boston, Mass.			30.02	762.5	32	0.0	79	NW	6	2.7		2	Haze	NW		0.02	.5		
Breckenridge, Minn.			30.10	764.5	8	—13.3	100	SE	12	5.4			10			0.02	0.5	Light snow.	
Buffalo, N. Y.			30.07	763.8	23	— 5.0	75	NE	4	1.8			Haze			0	0		
Burlington, Vt.			30.01	762.2	30	— 1.1	78	E	3	1.2			10			0	0		
Cairo, Ill.			29.76	754.4	27	— 2.8	100	N	28	12.5			10			0.39	9.0	Light snow.	
Cape Hatteras, N. C.			29.79	756.7	48	8.9	100	NE	19	8.5			10		NE	0.09	2.3	Light mist.	
Cape Henry, Va.			29.88	758.9	30	1.1	100	E	24	10.7			10		E	0.08	2.0	Light rain.	
Cape May, N. J.			29.98	761.5	34	1.1	90	NE	12	5.4			10			0	0	Threatening	
Charleston, S. C.			29.65	753.1	59	15.0	94	SE	10	4.0			10		S	0.70	17.8	Threatening	
Cheyenne, W. T.			29.67	753.6	27	— 2.8	59	W	4	1.8		0	0			0	0		
Chicago, Ill.			30.05	763.3	12	—11.1	61	N	9	4.0		0	0			0	0		
Cincinnati, Ohio			29.73	755.1	29	— 1.7	78	NE	8	3.6			10		NE	0.08	2.0	Heavy snow	
Cleveland, Ohio			29.95	760.7	22	— 5.6	23	N	11	4.9		8	0			0	0	Clearing	
Colorado Springs, Col.			29.69	754.1	30	— 1.1	67	SE	1	0.4		Haze	0			0	0		
Corsicana, Texas			30.18	766.6	25	— 3.9	88	NW	6	2.7		0	0			0.17	4.4		
Davenport, Iowa			30.08	764.0	16	— 8.9	83	Calm	0	0		0	0			0	0		
Denver, Col.			29.77	756.1	18	— 7.8	68	S	5	2.2		0	0			0	0		
Detroit, Mich.			30.02	762.5	19	— 7.2	69	NE	3	1.3		5	2	NE		0	0		
Dodge City, Kansas			29.81	757.	24	— 4.4	87	SE	5	2.2		0	0			0	0		
Dubuque, Iowa			29.36	745.7	4	—15.6	60	Calm	0	0		0	0			0	0		
Duluth, Minn.			30.08	764.0	7	—13.9	76	NW	4	1.8		0	2			0	0		
Eastport, Me.			30.00	762.0	26	— 3.3	76	N	5	2.2		5	5	N		0.04	1.0		
Erie, Penn.			30.02	762.5	22	— 5.6	92	N	4	1.8			10			0	0		
Escanaba, Mich.			30.13	765.3	0	—17.8	69	N	3	1.3		0	0			0	0		
Fort Gibson, I. T.			30.06	763.5	24	— 4.4	88	N	5	2.2		0	0			0.01	0.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.81	757.2	10	—12.2	69	SE	12	5.4		8	2	N	SE	0	0		
Galveston, Texas			30.16	766.1	36	2.2	71	NW	22	9.8		0	0			0	0		
Grand Haven, Mich.			30.07	763.8	10	—12.2	58	NE	4	1.8		0	0			0	0		
Indianapolis, Ind.			29.76	755.9	26	— 3.3	76	NE	16	7.2			5		SE	0	0		
Indianola, Texas			30.25	768.3	40	4.4	63	NW	20	8.9		0	0			0	0		
Jacksonville, Fla.			29.70	754.4	64	17.8	78	SW	20	8.9		5	0	SW		0	0		
Keokuk, Iowa			30.02	762.5	16	— 8.9	66	N	2	0.9		0	0			0	0		
Key West, Fla.			29.98	761.5	77	25.0	73	SW	16	7.2		5	Haze	SW		0	0		
Kittyhawk, N. C.			29.84	757.9	44	6.7	100	NE					10		NE	0.08	2.0	Light rain.	
Knoxville, Tenn.			29.32	744.2	47	8.3	92	NE	16	7.2			10			0.51	13.0		
La Crosse, Wis.			30.15	765.8	3	—16.1	73	Calm	0	0		0	Haze			0	0		
Leavenworth, Kan.			30.10	764.5	21	— 6.1	83	NW	1	0.4		0	0			0	0		
Lexington, Ky.			29.50	749.3	32	0.0	79	NE	24	10.7		0	0			0	0		
Long Branch, N. J.			30.05	763.3	31	— 0.6	89	NE	8	3.6			10			0	0		
Louisville, Ky.			29.61	752.1	31	— 0.6	79	N	28	12.5			10			0.09	2.3	Sleet	
Lynchburg, Va.			29.84	757.9	38	3.3	90	NE	8	3.6			10		NE	Blank	Blank	Light rain.	
Malone, N. Y.																			
Marquette, Mich.			30.10	764.5	8	—13.3	78	W	4	1.8		0	0			0.16	4.1		
Memphis, Tenn.			29.70	754.4	29	— 1.7	100	NW	12	4.5			10			0.51	13.0	Light snow.	
Milwaukee, Wisconsin			30.12	765.0	7	—13.9	100	NW	2	0.9			Fog			0	0	Fog	
Mobile, Ala.			29.86	758.4	38	3.3	63	NW	14	6.2			10		NW	1.03	26.2		
Montgomery, Ala.			29.65	753.1	42	5.6	66	W	22	9.8		10	0	W		2.02	51.6		
Morgantown, W. Virginia			29.87	758.7	31	— 0.6	94	NE	3	1.3			10			0.22	5.6	Light snow.	
Mt. Washington, N. H.			29.87	758.7	14	—10.0	82	Calm	0	0		2	5	NW		0	0		
Nashville, Tenn.			29.40	746.7	37	2.8	90	S	10	4.5			10			0.85	21.6		
New Haven, Conn.			30.05	763.3	29	— 1.7	77	NE	8	3.6		Haze	10		NE	0	0		
New London, Conn.			30.06	763.5	32	0.0	79	NW	2	.9		Haze	Fog			0.01	0.3		
New Orleans, La.			29.93	760.2	38	3.3	54	W	15	6.7		2	0	W		0.51	13.0		
Newport, R. I.																			
New York, N. Y.			30.05	763.3	32	0.0	79	E	11	4.9			10			0	0		
Norfolk, Va.			29.88	758.9	40	4.4	95	E	12	5.4			10			0.08	2.0	Light rain.	
North Platte, Neb.			29.48	748.8	28	— 2.2	77	Calm	0	0		0	5		N	0	0		
Omaha, Neb.			30.09	764.3	12	—11.1	100	Calm	0	0			10		NE	0	0		
Oswego, N. Y.			30.08	764.0	31	— 0.6	81	W	1	0.4			10		W	0.02	0.5	Threatening	
Peck's Beach			30.01	762.2	33	0.6	89	E	16	7.2			10			0	0		
Pembina, D. T.			30.05	763.3	1	—17.2	72	SE	12	5.4			10			0	0		
Philadelphia, Penn.			30.03	762.7	32	0.0	69	E	13	5.9			10		E	0	0		
Pike's Peak, C. T.			29.56	750.8	1	17.2	71	W	54	24.1		0	0			0	0		
Pittsburgh, Penn.			29.93	760.2	28	— 2.2	88	NE	4	1.8			10			Blank	Blank	Light snow.	
Port Huron, Mich.			30.11	764.8	11	—11.7	100	NE	5	2.2			Fog			0	0	Fog	
Portland, Maine			30.02	762.3	33	0.6	79	NW	4	1.8		10	Haze			0	0		
Portland, Or.			30.20	767.1	43	6.1	91	SW	2	0.9			10			0.34	8.6		
Punta Rassa, Fla.			29.91	795.7	76	24.4	91	SW	36	16.1		8	2			0	0		
Rochester, N. Y.			30.07	763.8	25	— 3.9	87	W	3	1.3		Haze	Haze			0	0		
Salt Lake City, Utah			29.93	760.2	35	1.7	52	NE	1	0.4			10			0	0		
Sandy Hook, N. J.			30.04	763.0	32	0.0	74	NE	8	3.6			10		E	0	0		
San Diego, Cal.			30.01	762.2	45	7.2	67	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.16	766.1	49	9.4	78	NW	6	2.7		0	0			0	0		
Santa Fe, N. M.			29.54	750.3	17	— 8.3	51	N	16	7.2		0	0			0	0		
Savannah, Georgia			29.55	750.6	64	17.8	94	S	17	7.6			10		S	1.60	40.6	Threatening	
Shreveport, La.			30.08	764.0	28	— 2.2	88	NW	8	3.6		0	0			0.40	10.2		
Springfield, Mass.			30.06	763.5	29	— 1.7	77	Calm	8	3.6			Sm'e			0	0		
St. Louis, Mo.			30.06	763.5	20	— 6.7	70	N	16	7.2		0	5		N	0	0		
St. Marks, Fla.			29.72	754.9	57	13.9	62	W	24	10.7		0	8		W	3.06	77.7		
St. Paul, Minn.			30.08	764.0	0	—17.8	69	SW	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			29.00	736.6	34	1.1	89	S	11	4.9		0	8	SW		0.03	0.8		
Squan Beach, N. J.			30.03	762.7	32	0.0	68	NE	12	5.4		0	Sm'e			0	0		
Toledo, Ohio			29.94	760.5	17	— 8.3	83	NE	20	8.9			2		SW	0	0		
Tybee Island, Ga.			29.58	751.1	62	16.7	94	S	22	9.8		2	8	SE	SW	1.13	28.7	Light rain.	
Vicksburg, Miss.			29.94	760.5	35	1.7	69	NW	21	9.4			10			0.23	5.8		
Virginia City, Mon.			29.49	749.0	22	— 5.6	85	Calm	0	0			10			0	0		
Washington, D. C.			30.00	762.0	33	0.6	100	NE	4	1.8			10			0.01	0.3	Heavy snow	
Wilmington, N. C.			29.73	755.1	53	11.7	93	E	12	5.4			10			1.08	27.4		
Wood's Hole, Mass.			30.05	763.3	33	0.6	69	NW	7	3.1		5	0	SW		0	0		
Wytheville, Va.			29.58	751.3	37	2.8	90	E	8	3.6			10			0.35	8.9	Heavy rain.	
Yankton, D. T.			30.10	764.5	3	—16.1	73	SE	12	0.9		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—12.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	81	27.2		NE	4	1.8		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.00	762.0	74	23.3		E				8	0			1.0	2.5		
Havana, Cuba, W. I.			29.81	757.2	79	26.1	76	NW	5	2.2		8	0	SW		0	0		
Kingston, Jamaica, W. I.			30.19	766.8	74	23.3	90	Calm	0	0			10			0.01	0.3		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.85	758.2	74	23.3	76	Calm	0	0		2	10	SE		0	0		
St. Georges, Bermudas			30.08	764.0	66	18.9	76	SW	31	13.9		0	0			0·005	0.13		
Honolulu, Oahu, S. I.			30.00	764.3	63	17.2		Calm			0	0	0						
Makawao, Maui, S. I.			29.92	760.0	60	15.6	77	SE	8.4	3.8		0	3			0	0		
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.35	770.9	—25	—31.7		E	3	1.3		4	0	SW		0	0		
Clifton, Jamaica, W. I.			30.00	764.3	63	17.2		NE	4	1.8						0	0		C. Partridge.
St. Johns, Newfoundland			30.07	763.8	20	— 6.7	100	NE					Sim'e			0	0		John Delaney.
St. Johns Porto Rico W. I.			30.11	764.9	72.9	22.7	77	SE			1	2	0			0	0		Leon M. Acuña.
Ellyria, Ohio	29.15	740.4			21	— 6.1	85	NE	9	4.0		0	8			0	0		H. M. Redington.
Indianola, Iowa	29.26	743.2			6	—14.4		NW				0	1			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 8, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.0															Charnot.
Algiers			30.44	773.2	64.0	17.8	72	NNW			1		0			0	0		Peter.
La Calle			30.43	773.0															Kuntz.
Tunis			30.45	773.3	63.5	17.5	66	N			3		9			0	0		Jacques.
Sfax			30.46	773.7															Chauvey.
Saida			30.46	771.1	74.1	23.4		SW			3		0			0	0		Grosjean.
Teb-ssa			30.44	773.1															Colin.
Geriville			30.37	771.5	69.8	21.0		NNW			1		0			0	0		Bernadach.
Laghouat			30.41	772.4	68.7	20.4	30	NE			2		0			0	0		Poinsignon.
Biskra			30.43	773.0	82.4	28.0	20	NE			1		1			0	0	Sirocco	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.48	774.2	36.1	2.3	58	NW			1		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.32	770.0	32.0	0.0	83	NE			2		9			0	0		I. R. Observatory.
Eperies			30.40	772.2	29.1	— 1.6	82	SE			3		2			0	0		Julius Mikolik.
Gratz			30.43	773.0	31.8	— 0.1	87	S			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.53	775.4	27.3	— 2.6	77	SE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.33	770.4	32.7	0.4	93	Calm			0		10			0.480	12.2		Prof. C. Wagner.
Lemberg			30.35	770.9	31.3	— 0.4	70	NW			3		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.56	776.2	24.7	— 4.6	86	W			1		0			0	0		Habzsuda Daniel.
Pola			30.43	772.8	46.0	7.8	64	WNW			2		6			0	0		I. R. Hydrographic Office
Szegodin			30.54	775.7	17.2	— 8.2	88	SW			3		4			0	0		Karl Stancel.
Trieste			30.43	772.9	46.4	8.0	50	NW			1		2						Prof. V. Farolfi.
Vienna			30.30	772.0	28.8	— 1.8	93	SE			1		10			0.047	1.2		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.95	760.8			54.3	12.4	94	W			2		10		WSW	0.114	2.90		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	53.0	11.7		WSW	21	9.4			2			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.85	758.2	56	7.8		SSW			2		6						William McNeil.
Armagh Observatory			29.89	759.2	51.7	10.9		S	12	5.4			8						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			29.94	760.5	54.3	12.4		SW			2		7						The Liverpool Obs.
Birr Castle			29.87	758.7	52.6	11.4		SSE			1-2		10						J. Dreyer.
Bradford			29.90	759.4	53.9	12.2		W			4		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.03	762.7	55.0	12.8		SW			1		10						H. Todd.
Cape Town, Cape Colony			29.82	757.4	77.4	25.2		NW			2		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.45	748 0			65.7	18.0	45	S	10	4.5			6						The Royal Observatory.
Cardington			30.02	762.5	57.0	13.9		SW					9						John McLaren.
Carlisle			29.9	759.4	50.2	10.1		W					8			0.08	2.0		T. Bell.
Chatham			30.05	763.3	55.4	13.0		SW			3		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.88	761.5	77.8	25.4		SE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.14	765.5	47.5	8.6		SW			7		10				Bla k	rain & fog	R. E. Power.
Donaghadee			29.87	758 7	54	12.2		S			3		6						J. Mac Gowan, Jr.
Dover			30.02	762.5	47	8.3		SW			5		9						J. Costello.
Dublin																			
Durham Observatory			29.86	758.4	47.0	8.3		WSW					7						G. Goldney.
Eccles, (near Manchester)			29.96	761 0	56.3	13.5		SW	3.0	1.3			8						Thomas Mackereth.
Falmouth Observatory			30.10	764.5	52.2	11.2		SW	29	13.0			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.94	760.5	70.5	21.4		E			4		8						Pvt. G. Salmon.
Galway			29.86	758.4	52	11.1		SW			3		4						Queen's College.
Gibraltar, (Mediterranean)			30.34	770.6	65.0	18.3		ENE			4		3						Sgt. J. Brewster.
Glasgow Observatory			29.84	757.9	50.3	10.2		SW			3		7						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.02	762.5	56	13.3		WSW			3		7					Mist	G. T. Watson.
Greenwich Royal Obs.			30.07	763.8	55.7	13.2		SW			4		10						The Royal Observatory.
Guernsey			30.14	765.5	57	13.9		SW			2		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.91	759.7	51.6	10.9		WSW					9						Moorside Observatory.
Halifax, (Nova Scotia)			29.67	753.6	29.4	— 1.4		N			3		10					Snow	Corp'l J. Y. Thompson.
Helston			30.05	763.3	53	11.7		SW			4		10					Mist	W. B. Moyle.
Holyhead			29.92	760.0	48	8.9		SW			2		10					Fog	John Tilston.
Hull Park																			
Kew Observatory			30.07	763.8	55.7	13.2		SW	23	10.3			10						The Met. Office.
Kingstown			29.92	76 .0	50	10.0		SE			1		9						George Mitchell.
Lampeter																			
Leicester			30.00	762.0	54.4	12.4		SW			2		10						William J. Harrison
Llandudno			29.93	760.2	54.8	12.7		SW					6						Dr. James Nicol.
Malta, (Mediterranean)			30.42	772.7	58.0	14.4		NE			1		8						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.70	754.4	53	11.7		WS			2		0						William D. Penny.
Nassau, (Bahamas)			30.04	763.0	74.0	23.3		NW			4		2						Surgeon I. Jameson.
North Shields			29.88	758.9	50	10.0		W			4		5						John Wm. Irvine.
Nottingham			29.99	761.7	57.4	14.1		SW			3		9		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.00	762.0	53.5	11.9		SW			3		9						St. Mary's College.
Oxford, Radcliffe Obs.			30.04	763.0	57	13.9		SW			3		10					Threatening	Radcliffe Observatory.
Plymouth			30.11	764.8	51.5	10.8		SW			4		10					Fog, Lt. rain.	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			29.89	7 9.2	49	9.4		SW			3							Snowy	W. Kennedy.
Saint Ann's Head			29.99	761.7	48	8.9		SSW			3		10					Fog	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.64	752.8	45.5	7.5		WSW	40	18.0			0						Rev. Dr. Clouston.
Scarboro'			29.93	760.2	52.2	11.2		WSW			2		7						F. Heard.
Scutari, (Turkey)			30.44	773.2	32.8	0.4		NE			3		10					Snowy	W. H. Lyne.
Sheffield			29.96	761.0	55.1	12.8		W			2		7						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.89	759.2	52.0	11.1		W3W			4		2			0.360	9.12		Francis Redford.
Somerleyton, (Lowestoft)			30.02	762.5	58.4	14.7		SSW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.93	760.7	50.9	10.5		SW			2		8						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.71	754.6	46	7.8		W			5		10					Squally	John Smith.
Strathfield Turgiss			30.09	764.3	54.5	12.5		W			1-2		10						Charles H. Griffith.
Streatley Vicarage			30.09	764.3	57.5	14.2		WSW			2		8						Rev. John Slatter.
Sumburgh Head, Shetland			29.46	748.3	45	7.2		W			6		10					Rain	William Lawrence.
Taunton College																			
Thurso			29.64	752.8	50	10.0		W			5		5						John Trotter.
Truro Royal Institution			30.01	762.2	54	12.2		SW			7		10					Rain	Royal Institution.
Valencia			30.25	768.3	48.8	9.3		NNW	28	12.5			4					Mist	Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.15	765.8	46.2	7.9		W			4		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.72	734.9	34.9	1.6	96	S			2		10					Rain	
Fanöe			29.81	757.1	36.5	2.5	100	W			4		10					Fog	
Godthaab, (Greenland)			29.83	757.6	−15.0	−26.1		NNE			4		8						
Stykkisholm, (Iceland)			29.31	744.4	32.4	0.2	85	SW			6		8						
Thorshavn, (Faröe)			29.34	745.2	44.2	6.8	78	W			6		10					Rain	
Vestervig			29.73	755.2	38.1	3.4	98	W			4		10					Fog	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			30.34	770.5	64.6	18.1	24						1						Normal School.
Alençon			30.30	769.7	62.6	17.0	67				3		5			0	0		Normal School.
Amiens			30.25?	768.32	63.7	17.6	72	W-W			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.30	769.5	64.0	17.8	72	SW	2.0	0.0			5		SW	0.008	0.2	Solar halo.	Beaumette Observatory.
Beauvais			30.26	768.7	62.8	17.1	61	W			3		8		W	0	0		Normal School.
Besançon			30.41	772.9	61.5	16.4	66	S			4		5		SW	0.055	1.4		Normal School.
Bourges			30.43	772.9	55.4	13.0		SSW			1		10		SSW	0	0		Normal School.
Brest			30.15	765.8	55.6	13.1	86	S			3		8		SW	0.020	.50		Naval Observatory.
Caen			30.24	768.1	58.6	14.8	68	SW			1		2		W	0.004	0.1		Normal School
Carcassonne																			
Chartres			30.29	769.4	61.3	16.3		W			1		10			0	0		Normal School.
Chaumont			30.25	770.9	59.5	15.3		W			4		8		W	0.118	3.0		Normal School.
Le Mans			30.33	770.3	61.3	16.3	94	WSW			2		5		W	0	0		Normal School.
Mirecourt			30.22	767.6	52.2	11.2		SW			2		8		E	0	0		Normal School.
Orleans			30.342	770.72	61.9	16.6	73	W			2		5		W	0	0		Normal School.
Paris			30.33	770.4	61.9	16.6		WSW			2		8		WSW	0.080	0.22		National Observatory.
Parthenay			30.37	771.4	59.9	15.5	62	SW			2		2		SW	0	0		
La Roche sur Yon			30.35	771.0	64.8	18.2	69	S			2		5		S	0	0		Normal School.
Rouen			30.23	767.9	64.0	17.6	61	SW			3		0		W	0	0		Normal School.
Saint Lo			30.23	767.8	51.4	10.8	67	WNW			4		2		WNW	0	0		Normal School.
Villefranche			30.45	773.3	52.0	11.1	97	SE			1		8		NE	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Gorée, (Senegambia)			29.91	759.6	85.6	29.8	27	NNE			1		1			0	0		Père Pascall.
Mont-Louis	25.24	641.0			51.8	11.0	63	WSW	16.8	7.5			2		NNW	0	0		—. Falguère.
Montsouris (near Paris)			30.29	769.4	61.2	16.2	71	SW	7.6	3.4			10		W	0.035	0.9	Rainy	Marié Davy.
Perpignan	30.29	769.4			71.2	21.8	48	SE	5.6	2.5			10		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.30	769.5	61.2	16.2	70	SW			3		10			0.012	0.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.35	771.0	63.9	17.7	71	SW			1		8		W	0.024	0.6		C. Marquet.
Versailles, (near Paris)			30.34	770.6	61.9	16.6	70	SW			2		9			0.014	0.34		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bamberg			30.17	766.4	43.2	6.2	97	S			2		10			0.366	9.3	Rain	Prof. Hoh.
Berlin			30.01	762.2	41.0	5.0	98	S			1		10			0.138	3.5		Prof. Arndt.
Breslau			30.18	766.6	36.0	2.2	80	S			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.26	768.7	58.6	14.8	72	SW			7.5		10			0.067	1.7	Rain	A. Lenz.
Cassel			30.11	764.9	48.6	9.2	94	SSW			2		9			0.720	18.3		Dr. H. Mohl.
Cologne			30.13	765.3	55.4	13.0	90	WSW			3		8			0.094	2.4	Rain	Dr. Gaithe.
Emden			30.08	763.9	46.6	8.1	97	W			0.6		2			0.405	10.3		Prof. Prestel.
Frankfort on the Main			30.32	769.5	56.1	13.4	89	SW			3		9			0.173	4.4		Physical Society.
Friedrichshafen			30.40	772.2	50.0	10.0	94	SW					7			0.205	5.2		M. Wilhelm.
Hamburg			29.93	760.1	46.2	7.9	95	W			6		10			0.343	8.7	Fog.	W. Reinart.
Kiel			29.94	760.5	43.0	6.1	92	W			4		10			0.319	8.1		Prof. G. Karsten.
Königsberg			30.09	764.2	33.3	0.7	65	SE			4		9			0	0		Prof. E. Luther.
Köslin			30.19	766.9	36.8	2.4		SE			2		10			0.675	1.9		Dr. Tigert.
Leipsic			30.09	764.2	43.0	6.1	97	SSW			2		10			0.587	14.9	Rain	Prof. Bruhns.
Münster			30.17	766.4	52.7	11.5	92	S			2		10			0	0		Prof. E. Heis.
Posen			30.17	766.2	37.0	3.1	85	S			3-4		10			0.189	4.8		Dr. Magener.
Strassburg, (in Alsace)			30.30	769.7	60.1	15.6	68	S					10			0	0		Hartwig and Fulk.
Stuttgart			30.29	769.4	59.0	15.0	68	W					10			0.067	1.7	Rain	Mr. Wurth.
Thorn			30.12	765.1	36.0	2.2	74	SE			4		10			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.21	767.2	53.4	11.9	90	W			8		10			0.055	1.4		Prof. Flesch.
Wustrow			29.87	758.7	37.2	2.9	100	S			4		10			0.134	3.4		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture and Commerce and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Moncalieri			30.49	774.5	37.8	3.2	66	E			2		3			0	0		
Mondovi			30.49	774.5	41.9	5.5	54	NNW			4		7	NNW		0	0		
Genoa			30.48	774.1	51.8	11.0	55	SW	2.5	1.1			2			0	0		
Savia			30.48	774.1	49.3	4.0	62	SW			1		7	SW		0	0		
Verona			30.42	772.6	49.0	9.8	69				1		5			0	0		
Padua			30.43	772.8	48.9	9.6	65	S-W	1.8	0.8			3			0	0		
Parma																			
Bologna			30.51	775.0	41.4	5.2	42	SSW			4		4			0	0		
Livorno			30.43	773.0	56.7	13.7	47	NE	5.6	2.5			7			0	0		
Urbino			30.49	774.5	42.8	6.0	70	SE			2		8			0	0		
Ancona			30.47	773.8	45.1	7.3	84				2		1			0	0		
Siena			30.43	772.8	50.5	10.3	60	SW	0	0			0			0	0		
Rome			30.43	773.0	58.5	14.7	55	S	3.1	1.4			1			0	0		
Naples, O.U.			30.43	772.9	59.0	15.0	31	WNW			1		0			0	0		
Lecce			30.42	772.7	48.0	8.9	52	NNW	11.2	5.0			1			0	0		
Cosenza			30.43	772.8	33.4	10.8	48	NNW			4		0			0	0		
Catania, (Sicily)			30.43	772.8	55.4	13.0	63	E			2		2	N		0	0		
Riposto																			
Palermo			30.39	770.6	55.9	13.3	63	NE			2		0			Blank	Blank		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.15	765.7	47.5	8.6		W			5								
Groningen			29.96	761.0	48.2	9.0		W			4								
Helder			30.02	762.6	44.6	7.0		SW			4								
Utrecht			30.05	763.2	50.9	10.5		WSW			4		10						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.61	752.1	42.1	5.6	90	S	18.6	8.3			10			0.925	23.5	Rain	
Christiania			29.79	756.6	27.9	— 2.3	89	NNE	9.4	4.2			10			0	0		
Tromsö			29.59	751.6	31.1	— 0.5	94	E			2		0			0.118	3.0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.97	761.1			60.8	15.9	88	NE	3.8	1.7			10						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.23	767.8	33.4	0.8	100	S	4	2			9						Astronomical Obs.
Wilna			30.25	768.3	28.0	— 2.2	78	Calm	0	0			3						Astronomical Obs.
Dorpat			30.25	768.3	26.8	— 2.9	76	SSE	2	1			1						Physical Cabinet.
St. Petersburg			30.22	767.5	25.3	— 3.7	67	E	9	4			4						Central Physical Obs.
Kieff			30.28	769.0	21.0	— 6.1	61	WNW	13	6			4						Physical Cabinet.
Nikolaiev			30.53	775.4	15.8	— 9.0	54	SW	10.1	4.5			0						
Kertch			30.40	772.2	21.7	— 5.7	67	N	10.1	4.5			3						Lagorio.
Moscow			29.94	760.4	19.6	— 6.9	73	N	16.8	7.5			10						Meteorological Obs.
Lugan			30.12	765.0	12.6	—10.8	53	WSW	13	6			6						Meteorological Obs.
Archangel			30.22	767.5	20.5	— 6.4	74	NW	7.8	3.5			10						Ogorodnikof.
Tiflis			30.25	768.4	30.0	— 1.1	78	Calm	0	0			10			Blank	Blank	Snow	Physical Obs.
Astrakhan			30.31	769.9	21.9	— 5.6	51	W	10.1	4.5			5						Sebastianof.
Kasan			29.66	753.3	16.7	— 8.5	94	WNW	7.8	3.4			10			Blank	Blank	Snow	Physical Cabinet.
Orenburg			29.76	755.4	6.1	—14.4	92	W	10.1	4.5			6						Tschernischef.
Ekaterinburg			29.86	758.4	0.7	—17.4	73	W	4	2			0						Meteorological Obs.
Kasaly			29.9	761.0	42.6	5.9	72	NW	13	6			10			Blank	Blank	Snow	Bobrof.
Tashkend			30.43	772.2	36.9	2.7	91	Calm	0	0			10			Blank	Blank	Rain	Michelson.
Barnaul			29.7	754.3	31.5	— 0.3	87	NE	4	2			6			Blank	Blank	Snow	Meteorological Obs.
Yeniseisk			29.86	758.4	21.9	— 5.6	79	SW	10.1	4.5			0						arks.
Irkutsk																			Usolzef.
Oorga			30.08	764.1	25.2	— 3.8	97	Calm	0	0			0						Mossin.
Peking, (China)			30.10	764.5	42.6	5.9	57	Calm	0	0			0						Physical Observatory
Nertchinsk			30.06	763.5	17.6	— 8.0	71	Calm	0	0			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.43	772.9	64.8	18.2	66	N	1.6	0.7		6		NW		0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.98	761.4	20.8	— 6.2	95	SSW			7		10			0	0		
Hernosand			29.93	760.3	25.5	— 3.0	95	S			4		10			0	0		
Stockholm			29.91	759.8	31.3	— 0.4	82	SSE			4		10			0	0		
Wisby			29.95	760.8	29.1	— 1.6	89	SSW			6		5			0.106	2.7		
Upsala—(Sub-Series)			29.92	759.9	31.1	— 0.5	82	SSE			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.85	732.7			64.8	18.2	45	W			2		8			0	0		The Observatory.
Zurich	28.74	730.0			57.1	13.3	71	SW			2		8			0.114	2.9		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.00mm.; Thermometer, +11°.6 C.; Relative Humidity, —18 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.88	758.9	48.2	9.0	82	SSE			3		10			Blank	Blank	Rain	
Constantinople			30.42	772.7	30.9	— 0.6	100	NE	20.1	9.0			10		NE				
Fao, (Persian Gulf)			30.04	763.0	64.4	18.0		NW			3		10						
Salonica			30.43	772.9	50.9	10.5		NE			1		2						
Valona			30.24	768.2	51.4	10.8		N			2		0						
Varna			30.07	779.0	27.5	— 2.5		N			3		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Brockville			30.04	763.0	21	— 6.1		N	4	1.8		0	2		N	0	0		
Cape Rozière, Quebec			29.97	761.2	20	— 6.7	93	W	2	0.9		5	8	NW	NW	0	0		
Chatham, N. B.			29.92	760.0	15	— 9.4	100	N	5	2.2		5	5	N	N	0	0		
Charlottetown, P. E. Island			29.85	758.2	23	— 5.0	97	N	9	4.0			10			0.050	1.27		
Father Point, Quebec													5			0	0		
Fort Garry, Manitoba			29.94	760.5	17	— 8.3	97	Calm	0	0			10			0.117	29.7	Heavy snow.	
Halifax, N. S.			29.65	753.1	29	— 1.7	96	NE	4	1.8		0	0			0	0		
Kingston, Ontario			30.06	763.5	21	— 6.1	87	NE	7	3.1		0	2		W	0	0		
Montreal, Quebec			29.98	761.5	22	— 5.6	76	NE	12	5.4		2	0	N		0	0		
Ottawa, Ontario			30.06	763.5	17	— 8.3	69	N	6	2.7		2	2	N	N	0	0		
Parry Sound, Ontario			30.15	765.8	7	—13.9	73	NE	11	4.9		5	0	NW		0	0		
Port Dover, Ontario			30.07	763.7	15	— 9.4	82	NW	9	4.0		2	0	W		0	0		
Port Stanley, Ontario			30.09	764.3	11	—11.7	94	N	7	3.1			10		N	0	0		
Quebec, Quebec			30.01	762.2	23	— 5.0	73	Calm	0	0		8	0			0	0		
Saugeen, Ontario			30.16	766.1	1	—17.2	94	Calm	0	0		5	0			0	0		
Stayner			30.13	765.3	8	—13.3	100	Calm	0	0			10			0.08	2.0	Light snow.	
Sydney, C. B.			29.87	758.7	24	— 4.4	92	E	7	3.1		2	Haze	NW		0	0		
Toronto, Ontario			30.09	764.3	17	— 8.3	82	NE	7	3.1									

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.79	756.7	27	— 2.8	100	NW	15	6.7			10			0.22	5.6		
Alpena, Mich.			30.19	766.8	5	—13.3	78	NW	4	1.8		5	0	W		0	0		
Atlantic City, N. J.			29.66	753.4	34	1.1	90	NW	24	10.7			10		NW	1.52	38.6	Light snow.	
Augusta, Ga.			30.05	763.5	38	3.3	72	NW	6	2.7		0	0			0.09	2.3		
Baltimore, Md.			30.80	756.9	35	1.7	70	NW	12	5.4		5	2	W	NW	0.76	19.3		
Barnegat, N. J.			29.51	749.5	30	— 1.1	89	N	34	15.2			10		N	0.66	16.8		
Benton, Montana			30.06	763.5	29	— 1.7	87	SW	8	3.6		5	0			0	0		
Bismarck, Dakota			29.78	756.4	15	— 9.4	82	NW	26	11.6			10			0.03	0.8	Light snow.	
Boston, Mass.			29.67	753.6	29	— 1.7	100	NE	16	7.2			10			0.76	19.3	Light snow.	
Breckenridge, Minn.			29.82	757.4	23	— 5.0	90	SE	20	8.9			10			0.12	3.0		
Buffalo, N. Y.			30.03	762.7	20	— 6.7	64	N	8	3.6		0	2		W	0	0		
Burlington, Vt.			29.91	759.7	19	— 7.2	69	N	16	7.2			10			0	0		
Cairo, Ill.			30.18	760.0	25	— 3.9	75	NE	4	1.8		0	0			0.01	0.3		
Cape Hatteras, N. C.			29.87	758.7	44	6.7	75	W	20	8.9		0	5		NW	0.32	8.1		
Cape Henry, Va.			29.83	757.7	39	3.9	73	NW	29	13.0		5	0	W		2.88	73.9		
Cape May, N. J.			29.73	755.1	35	1.7	80	NW	24	10.7			10		N	0	0		
Charleston, S. C.			30.05	763.3	41	5.0	63	W	8	3.6		0	Sm'e			0.07	1.8		
Cheyenne, W. T.			29.89	759.2	22	— 5.6	72	W	20	8.9			10			0	0		
Chicago, Ill.			30.14	765.5	20	— 6.6	70	NE	2	0.9		2	0			0	0		
Cincinnati, Ohio			30.11	764.8	24	— 4.4	74	N	4	1.8		0	0			0.64	16.3		
Cleveland, Ohio			30.06	763.5	20	— 6.7	92	N	4	1.8		10	0	NE		0	0		
Colorado Springs, Col.			29.88	758.9	27	— 2.8	76	SE	7	3.1		10	0			0	0		
Corsicana, Texas			30.06	763.5	36	2.2	80	S	6	2.7		0	0			0	0		
Davenport, Iowa			30.14	765.5	22	— 5.6	85	E	2	0.9		2	Sm'e	W		0	0		
Denver, Col.			29.99	761.7	25	— 3.9	75	W	16	7.2		0	0			0	0		
Detroit, Mich.			30.12	765.0	14	—10.0	73		7	3.1		2	Sm'e			0	0		
Dodge City, Kansas			29.60	751.8	31	— 0.6	99	N	10	4.5		0	0			0	0		
Dubuque, Iowa			30.15	765.8	7	—13.9	65	N	2	0.9		2	Fog			0	0		
Duluth, Minn.			30.06	763.5	19	— 7.2	69	NE	4	1.8			10			0	0		
Eastport, Me.			29.78	756.4	22	— 5.6	85	NE	23	10.3			10		NE	0	0	Threatening	
Erie, Penn.			30.02	762.5	25	— 3.9	88	NE	8	3.6		2	5	NE		0	0		
Escanaba, Mich.			30.48	766.6	9	—12.8	78	N	4	1.8		5	5	N	N	0	0		
Fort Gibson, I. T.			29.98	761.5	33	0.6	61	E	8	3.6		Haze	0			0	0		
Fort St. Michael, Alaska																			
Fort Sullivan, D. T.			29.87	758.7	22	— 5.6	72	NW	24	10.7			10		NW	0	0		
Galveston, Texas			30.12	765.0	49	4.4	71	S	2	0.9		0	0			0	0		
Grand Haven, Mich.			30.17	766.3	8	—13.3	55	Calm	0	0		0	0			0	0		
Indianapolis, Ind.			30.15	765.8	20	— 6.7	85	NW	3	1.3		0	Sm'e			0	0		
Indianola, Texas			30.06	763.5	55	12.8	80	S	8	3.6		0	0			0	0		
Jacksonville, Fla.			30.11	764.8	45	7.2	80	NW	7	3.1		0	0			0	0		
Keokuk, Iowa			30.09	764.3	17	— 8.3	67	SE	6	2.7		0	0			0	0		
Key West, Fla.			30.11	764.8	70	21.1	66	N	5	2.2		Haze	Haze			0	0		
Kittyhawk, N. C.			29.82	757.4	39	3.9	74	NW				0	10		NW	0.35	8.9		
Knoxville, Tenn.			30.13	765.3	32	0.0	89	SW	4	1.8			10			0.38	9.7		
La Crosse, Wis.			30.13	765.3	16	— 8.9	83	S	1	0.4			10		S	0	0		
Leavenworth, Kan.			30.01	762.2	22	— 5.6	77	SE	8	3.6		5	2	W		0	0		
Lexington, Ky.			30.16	766.1	29	— 1.7	77	Calm	0	0		0	0			0.82	20.8		
Long Branch, N. J.			29.79	756.7	34	1.1	90	NW	30	13.4			10			1.73	46.9	Heavy snow	
Louisville, Ky.			30.13	765.3	22	— 5.6	72	Calm	0	0			10			0.29	7.4	Fog	
Lynchburg, Va.			29.90	759.4	38	3.3	77	SW	2	0.9		10	0	W		0.88	22.4		
Malone, N. Y.																			
Marquette, Mich.			30.17	766.3	12	—11.1	61	Calm	0	0		10	0			0	0		
Memphis, Tenn.			30.19	766.8	27	— 2.8	66	Calm	0	0		0	0			0.06	1.5		
Milwaukee, Wisconsin			30.22	767.6	13	—10.6	80	NW	2	0.9		Haze	2			0	0		
Mobile, Ala.			30.22	767.6	38	3.3	80	N	4	1.8		0	Sm'e			0	0		
Montgomery, Ala.			30.20	767.1	37	2.8	81	NW	6	2.7		0				0	0		
Morgantown, W. Virginia			30.02	762.5	28	— 2.2	77	NW	6	2.7			10			1.27	32.3		
Mt. Washington, N. H.			29.65	753.1	8	—13.3	100	NE	26	11.6		5	5	NE	NE	0	0		
Nashville, Tenn.			30.18	766.6	30	— 1.1	78	Calm	0	0		0	0			0.06	1.5		
New Haven, Conn.			29.65	753.1	31	— 0.6	89	N	24	10.7			10		N	0.58	14.7	Heavy snow.	
New London, Conn.			29.57	751.1	33	0.6	94	NE	19	8.5			10		NE	0.01	0.3	Sleet	
New Orleans, La.			30.18	766.6	46	7.8	62	W	4	1.8		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.72	754.9	30	— 1.1	89	N	25	11.2			10			0.08	2.0	Light snow	
Norfolk, Va.			29.84	757.9	37	2.8	72	N	16	7.2		5	0	W		2.71	68.8	Clearing	
North Platte, Neb.			29.63	752.6	29	— 1.7	77	SW	4	1.8		2	0	W		0	0		
Omaha, Neb.			29.89	759.2	30	— 1.1	78		15	6.7		0	2			0	0		
Oswego, N. Y.			30.00	762.0	23	— 5.0	86	NE	18	8.0		Haze	2		W	0	0		
Peck's Beach			29.73	755.1	34	1.1	90	N	32	14.3			10		N	1.95	49.5		
Pembina, D. T.			29.71	754.6	20	— 6.7	85	Calm	0	0			10			Blank	Blank	Light snow	
Philadelphia, Penn.			29.77	756.1	32	0.0	89	N	19	8.5		2	5	NE	N	0.97	24.6	Clearing	
Pike's Peak, C. T.			29.63	752.6	— 8	—22.2	100	W	20	8.9			Fog			0	0	Fog.	
Pittsburgh, Penn.			30.02	762.5	27	— 2.8	88	NW	3	1.3			10			0.98	24.9		
Port Huron, Mich.			30.15	765.8	13	—10.6	81	N	6	2.7		2	0			0	0		
Portland, Maine			29.73	755.1	28	— 2.2	77	NE	24	10.7		5	5			0.04	1.0		
Portland, Or.			30.05	763.4	35	1.7	89	Calm	0	0		8	Haze			0	0		
Punta Rassa, Fla.			30.14	765.5	63	17.2	61	NW	5	2.2		5	0	N		0.03	0.8		
Rochester, N. Y.			30.01	762.2	24	— 4.4	74	N	8	3.6		Haze	2			0	0		
Salt Lake City, Utah			30.15	765.8	28	— 2.2	57	Calm	0	0		0	0			0.12	3.0		
Sandy Hook, N. J.			29.69	754.1	32	0.0	100	N	45	20.1			10		N	0.95	24.1	Heavy snow	
San Diego, Cal.			30.01	762.2	48	8.9	100	NE	4	1.8		Haze	Fog			0	0	Fog	
San Francisco, Cal.			30.10	764.5	46	7.8	92	Calm	0	0		0	Haze			0	0		
Santa Fe, N. M.			29.64	752.9	23	— 5.0	60	N	4	1.8		0	2			0	0		
Savannah, Georgia			30.09	764.3	43	6.1	60	NW	10	4.5		0	0			0.20	5.1		
Shreveport, La.			30.16	766.1	34	1.1	90	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.70	754.4	31	— 0.6	89	N	12	5.4			10			0.93	23.6	Light snow.	
St. Louis, Mo.			30.17	766.3	22	— 5.6	85	E	1	0.4		0	0			0	0		
St. Marks, Fla.			30.18	766.6	37	2.8	90	Calm	0	0		0	0			0	0		
St. Paul, Minn.			29.91	759.7	22	— 5.6	85	SE	16	7.2			10			0	0		
St. Paul's Island, Alaska			29.69	738.9	35	1.7	79	SSE	20	8.9		0	10			0.06	1.5		
Squan Beach, N. J.			29.70	754.4	32	0.0	99	NW	24	10.7			10		NW	2.30	58.4	Light snow	
Toledo, Ohio			30.07	763.8	15	— 9.4	65	NW	8	3.6		2	Sm'e			0	0		
Tybee Island, Ga.			30.09	764.3	42	5.6	67	NW	8	3.6		0	2		W	0.07	1.8		
Vicksburg, Miss.			30.23	767.8	35	1.7	80	SE	10	4.5		0	0			0	0		
Virginia City, Mon.			29.76	755.9	16	— 8.9	83	Calm	0	0		Haze	2			0	0		
Washington, D. C.			29.84	757.9	33	0.6	74	NW	12	5.4		0	2		N	1.41	35.8	Clearing	
Wilmington, N. C.			29.97	761.2	40	4.4	64	NW	16	7.2		0	0			0.08	2.0		
Wood's Hole, Mass.			29.50	737.9	31	— 0.6	89	NE	15	6.7			10			0.68	17.3	Light snow.	
Wytheville, Va.			29.80	756.9	29	— 1.7	89	SW	10	4.5			10			0.93	23.6		
Yankton, D. T.			29.85	758.2	25	— 3.9	81	N	1	0.4			10		N	0.01	0.3	Light snow.	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	80	26.7		NE	3	1.3		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.01	762.2	73	22.8		E				5	2	E		0	0		
Havana, Cuba, W. I.			29.89	759.2	75	23.9	72	N	4	1.8		8	0	NE		0	0		
Kingston, Jamaica, W. I.			30.23	767.6	75	23.9	93	Calm	0	0			10			0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.90	759.4	72	22.2	71	Calm	0	0		0	0			0	0		
St. Georges, Bermudas			29.91	759.7	69	20.6	87	SE	49	21.9		10	0	SW		0	0		
Honolulu, Oahu, S. I.			30.03	762.7	62	16.7		NE			0					0.47	11.9	Rainy	
Makawao, Maui, S. I.			29.92	760.0	59	15.0	82	SE	1.2	0.5		0	0			0.80	20.3		
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.14	765.5	— 7	—21.7	100	E	6	2.7			10			0	0		
Clifton, Jamaica, W. I.			30.08	764.0	65	18.3		N	2	0.9		2	2	N		0	0		C. Partridge.
St. Johns, Newfoundland			30.12	765.0	20	— 6.7	1 0	NE					Sm'e			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.12	765.1	80.6	27.0	73	SE			1	0	0			0.004	0.10		Leon M. Acuña.
Ellyria, Ohio	29.23	742.4			19	— 7.2	100	NW	1	0.4		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.13	739.9			28	— 2.2		SE				0	4			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 9, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.0															Charnot.
Algiers			30.34	770.5	67.3	19.6	67	NW			1		2			0	0		Peter.
La Calle			30.42	772.6															Kuntz.
Tunis			30.47	773.9	64.7	17.2	67	ENE			3		6			0	0		Jacques.
Sfax			30.49	774.5														Fog	Chauvey.
Saïda			30.32	770.0	77.0	25.2		SSE			4		2			0	0		Grosjean.
Tebessa			30.30	772.0															Colin.
Geriville			30.34	770.6	68.0	20.1		SE			3		0			0	0		Bernadach.
Laghouat			30.36	771.2	63.5	17.5	57	SE			2		1			0	0		Poinsignon.
Biskra			30.37	771.4	70.3	21.3	39	NE			1		7			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.23	767.9	48.6	9.2	55	Calm			0		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.08	764.1	41.0	5.0	77	WSW			2		6			0.020	0.5		I. R. Observatory.
Eperies			30.23	767.7	26.8	— 2.9	91	SE			3		10			0.079	2.00		Julius Mikolik.
Gratz			30.20	767.1	47.1	8.4	69	SSW			2.5		5			0.087	2.2		Andreas Rospini.
Hermannstadt			30.25	768.4	29.5	— 1.4	82	SE			1		10			0	0		Prof. Reissenberger.
Kremsmünster			30.15	765.8	50.0	10.0	74	NE			1		7			0	0		Prof. C. Wagner.
Lemberg			30.04	762.9	34.7	1.5	91	NW			4		10			0.221	5.6		Dr. T. Stanecki.
Nyiregyhaza			30.26	768.6	32.7	0.4	85	Calm			0		10			0.089	2.26		Habesuda Daniel.
Pola			30.35	770.8	46.7	8.7	72	WSW			1		4			0	0		I. R. Hydrographic Office
Szegedin			30.24	768.0	32.5	- .3	90	S			2		10			0.045	1.15		Karl Stancel.
Trieste			30.33	770.4	46.0	7.8	69	NW			1		7						Prof. V. Farolfi.
Vienna			30.19	766.9	35.2	1.8	90	NNE			1		10			0.909	23.1		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.77	756.2			56.3	13.5	86	W			4		9		WSW	0.004	0.10		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.74	755.4	42.7	5.9		NW	36	16.1			9			1.369	34.54		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			29.94	760.5	47	8.3		NW			6		4						William McNeil.
Armagh Observatory			30.13	765.3	47.2	8.4		WNW	16	7.2			5						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.00	762.0	46.0	7.8		W			6		2						The Liverpool Obs.
Birr Castle			30.20	767.1	48.4	9.1		WNW			1-2		5						J. Dreyer.
Bradford			29.83	757.7	48.6	9.2		W			7		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			29.95	760.7	52.0	11.1		SW			6		2						H. Todd.
Cape Town, Cape Colony			29.80	756.9	65	18.3		NW			2		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.83	757.7			61.7	16.5	51	NW	10	4.5			2						The Royal Observatory.
Cardington																			John McLaren.
Carlisle			29.92	760.0	46.5	8.1		NW					6			0.37	7.40		T. Bell.
Chatham			29.91	759.7	53.7	12.1		W			5		8						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	78.2	25.7		E			2		8						Sgt. W. F. Hopkins
Dartmoor			30.21	767.3	43.8	6.6		NW			6		4						R. E. Power.
Donaghadee			30.07	763.8	48	8.9		NNW			6		5						J. Mac Gowan, Jr.
Dover			29.98	761.5	53	11.7		W			5		3						J. Costello.
Dublin																			
Durham Observatory			29.73	755.1	46.7	8.2		NW					3						G. Goldney.
Eccles, (near Manchester)			29.99	761.7	46.8	8.2		W	12.2	5.5			6						Thomas Mackereth.
Falmouth Observatory			30.24	768.1	50.0	10.0		NW	22	9.8			6						The Falmouth Obs.
Fort Napier, (Natal)			29.66	753.4	89.5	31.9		NW			4		1						Pvt. G. Salmon.
Galway			30.18	766.6	50	10.0		NW			1		7						Queen's College.
Gibraltar, (Mediterranean)			30.20	767.1	65.0	18.3		ENE			5		8						Sgt. J. Brewster.
Glasgow Observatory			29.91	759.7	46.4	8.0		NW			3		6						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			29.77	756.1	53	11.7		W			7		6						G. T. Watson.
Greenwich Royal Obs			30.01	762.2	54.6	12.6		WNW			5		5						The Royal Observatory.
Guernsey			30.19	766.8	52	11.1		WNW			3		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs			29.88	758.9	44.6	7.0		WNW			5		9						Moorside Observatory
Halifax, (Nova Scotia)			30.17	766.3	20.0	— 6.7		N			2		1						Corp'l J. Y. Thompson.
Helston			30.18	766.6	53	11.7		N			4		4						W. B. Moyle.
Holyhead			30.13	765.3	47	8.3		WNW			6		2						John Tilston.
Hull Park																			
Kew Observatory			30.03	762.7	52.3	11.3		W	30	13.4			5	SE					The Met. Office.
Kingstown			30.14	765.5	47	8.3		NW			5		5						George Mitchell.
Lampeter																			
Leicester			29.95	760.7	49.0	9.4		W			7		4						William J. Harrison
Llandudno			30.12	765.0	48.8	9.3		W					0						Dr. James Nicol.
Malta, (Mediterranean)			30.53	775.4	59.8	15.4		NW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			29.86	758.4	45	7.2		W			1		10					Rainy	William D. Penny.
Nassau, (Bahamas)			30.15	765.8	73.6	23.1		Calm			0		6						Surgeon I. Jamieson.
North Shields			29.70	754.4	45	7.2		WNW			8		5						John Wm. Irvine.
Nottingham			29.98	761.5	48.0	8.9		NW			4		7		NW				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.00	762.0	48.0	8.9		WNW			7-8		8						St. Mary's College.
Oxford, Radcliffe Obs			30.04	763.0	51	10.6		WNW			5		3						Radcliffe Observatory.
Plymouth			30.18	766.6	53	11.7		NW			4		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.20	767.1	47	8.3		NNW			5		2						W. Kennedy.
Saint Ann's Head			30.20	767.1	47	8.3		NW			2		6						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			29.84	757.9	42.4	5.8		N	28	12.5			0						Rev. Dr. Clouston.
Scarboro'			29.70	754.4	46.2	7.9		NW			7		7						F. Heard.
Scutari, (Turkey)			30.27	768.8	38.4	3.6		SW			2		10						W. H. Lyne.
Sheffield			29.88	758.9	47.0	8.3		WNW			6		3						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.91	759.7	49.8	9.9		NNW			6		5			0	0		Francis Redford.
Somerleyton, (Lowestoft)			29.84	756.9	53.7	11.1		WSW			4		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.93	760.2	44.1	6.7		W			6		7						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			29.95	760.7	44.1	6.7		NW			5		5						John Smith.
Strathfield Turgiss			30.12	765.0	54.0	12.2		NW			1-2		3						Charles H. Griffith.
Streatley Vicarage			30.08	764.0	55.2	12.9		NW			7		0						Rev. John Slatter.
Sumburgh Head, Shetland			29.68	753.9	44	6.7		N			6		5						William Lawrence.
Taunton College																			
Thurso			29.86	758.4	44	6.7		N			5		4						John Trotter.
Truro Royal Institution			30.18	766.6	53	11.7		NW			6		5						Royal Institution.
Valencia			30.25	768.3	48.8	9.3		NNW	10	4.5			4						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.07	763.8	54.8	12.7		WNW			3		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.63	752.6	36.5	2.5	98	SSW			2		10					Fog	
Fanöe			29.50	749.4	38.8	3.8	95	SW			4		5						
Godthaab, (Greenland)			29.83	757.6	-15.2	—26.2		NNE			4		2						
Stykkisholm, (Iceland)			29.48	748.9	29.8	— 1.2	100	SW			6		10					Snow	
Thorshavn, (Faröe)			29.85	758.1	43.2	6.2	49	NW			4		2						
Vestervig			29.33	745.0	38.1	3.4	97	SSW			2		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.34	770.5	59.0	15.0	80						2						Normal School.
Alençon			30.19	766.7	60.8	16.0	68	NW			2		5			0	0		Normal School.
Amiens			30.00	763.6	59.4	15.2	81	WNW			3		2		WNW	0	0		Normal School.
Beaumette, (near Angers)			30.18	766.6	62.8	17.1	67	SW	4.5	2.0			5		SW	0	0		Beaumette Observatory.
Beauvais			30.12	765.1	60.8	16.0	66	W			3		8		W	0	0		Normal School.
Besançon			30.33	770.2	64.9	18.3	60	SSW			4		5		SW	0	0		Normal School.
Bourges			30.31	769.8	56.8	13.8		S			1		5		S	0	0		Normal School.
Brest			30.20	767.1	52.3	11.3	70	NNW			2		8		NW	0	0		Naval Observatory.
Caen			30.18	766.6	57.0	13.9	75	W			2		5		W	0	0		Normal School
Carcassonne																			
Chartres			30.13	765.3	64.9	18.3		W			2		10		SSW	0	0		Normal School.
Chaumont			30.15	765.8	64.6	18.1		SSW			3		0			0	0		Normal School.
Le Mans			30.19	766.7	60.8	16.0	77	SW			2		5		NW	0.31	0.75		Normal School.
Mirecourt			30.04	762.9	57.4	14.1		SW			2	8		E		0	0		Normal School.
Orleans			30.15	765.7	62.2	16.8	68	SW			2		5		W	0	0		Normal School.
Paris			30.15	765.8	66.2	19.0		WSW			2		8			0	0	Solar halo	National Observatory.
Parthenay			30.21	767.2	61.5	16.4	62	SW			2		2		SW	0	0		
La Roche sur Yon			30.24	768.0	64.4	18.0	67	S			1		5			0	0		Normal School.
Rouen			30.10	764.5	56.7	13.7	64	WSW			3		2		W	0	0		Normal School.
Saint Lo			30.00	761.9	52.9	11.6	75	NW			2		10		NW	0	0		Normal School.
Villefranche			30.21	767.4	52.9	15.1	93	SE			1		5		NW	0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.97	761.1	73.9	23.3	55	NNE			3		1			0	0		Père Pascall.
Mont-Louis	25.18	639.5			58.8	14.9	41	SW	13.0	5.8			1		SW	0	0		—. Falguère.
Montsouris (near Paris)			30.11	764.9	66.6	19.2	56	WSW	9.2	4.1			10		W	0	0		Marié Davy.
Perpignan	30.22	767.5			54.5	12.5	94	NE	3.8	1.7			5			0.012	0.3	Mist	Dr. Fines.
Saint Maur, (near Paris)			30.11	764.9	67.5	19.7	51	SW			3		5			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.10	766.8	66.9	19.4	58	SW			2		2		W	0	0		C. Marquet.
Versailles, (near Paris)			30.12	765.1	65.1	18.4	53	NW			2		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. L. Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.00	763.5	54.5	12.5	65	SW			3		6			0.012	0.3		Prof. Hoh.
Berlin			29.91	759.8	53.1	11.7	73	SW			1		10			0.252	6.4		Prof. Arndt.
Breslau			30.06	763.6	45.0	7.2	89	SW			2		10			0.472	12.0	Rain	Dr. P. Neugebauer.
Carlsruhe			30.11	764.7	61.2	16.2	63	W			5		10			0	0		A. Leux.
Cassel			29.83	757.6	59.9	15.5	71	SSW			6		6			0.120	3.2		Dr. H. Mohl.
Cologne			29.98	761.5	61.7	16.5	87	NW			7		7			0.024	0.6		Dr. Gaithe.
Emden			29.74	755.3	48.0	8.9	87	W			6		9			0	0		Prof. Prestel.
Frankfort on the Main			30.16	766.1	58.5	14.7	74	SW			2		9			0.004	0.1		Physical Society.
Friedrichshafen			30.24	768.0	52.7	11.5	82	W					5			0.319	8.1		M. Wilhelm.
Hamburg			29.76	755.7	53.6	12.0	79	SW			6		10			0.035	0.9		W. Reinart.
Kiel			29.64	752.8	52.0	11.1	82	WSW			4		10			0.016	0.4		Prof. G. Karsten.
Königsberg			29.89	759.2	33.8	1.0	88	NW			4		9			0.343	8.7		Prof. E. Luther.
Köslin			30.09	764.4	38.7	3.7		SW			4		10			0.295	7.5		Dr. Tugert.
Leipsic			29.95	760.6	53.4	11.9	81	SSW			3		9			0.071	1.8		Prof. Bruhns.
Münster			29.94	760.4	60.4	15.8	76	W			7		10			0	0		Prof. E. Heis.
Posen			30.06	763.5	43.5	6.4	93	S			5		10			0.035	0.9		Dr. Mageder.
Strassburg, (in Alsace)			30.15	765.7	61.7	16.5	60	S					9			0.110	2.8		Hartwig and Fulk.
Stuttgart			30.13	765.2	61.2	16.2	64	SW					9			0	0		Mr. Würth.
Thorn			29.97	761.1	40.0	4.4	90	W			2		10			0.118	3.0		Dr. [illegible]enbalg.
Treves, (Trier)			30.01	762.2	62.6	17.0	59	SW			8		6			0	0		Prof. Flesch.
Wustrow			29.71	754.7	43.7	6.5	98	SSW			5		10			0.059	1.5		E. F[illegible]chuts.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.35	771.0	42.6	5.9	71	NE			1		9	NW		0	0		
Mondovi			30.32	770.1	50.0	10.0	58	NNE			2		9	NW		0	0		
Genoa			30.4	772.1	50.5	10.3	82	E	2.5	1.1			10	SE		0	0		
Pavia			30.34	770.7	48.0	8.9	57	E			1		0			0	0		
Verona			30.30	769.7	51.1	10.6	64	E			1		5			0	0		
Padua			30.32	770.1	45.5	7.5	60	NNW	0.7	0.3			5	NW		0	0		
Parma																			
Bologna			30.37	771.5	50.0	10.0	29	WSW			2		4	N		0	0		
Livorno			30.42	772.6	51.8	11.0	92	SSW	1.3	0.6			10			0	0		
Urbino			30.37	771.3	50.0	10.0	74	SW			4		5			0	0		
Ancona			30.34	770.7	49.5	9.7	74	NE			2		1			0	0		
Siena			30.39	772.0	51.6	10.9	71	WSW	0	0			10	W		0	0		
Rome			30.44	773.1	59.9	15.5	65	WSW	4.3	1.9			7			0	0		
Naples, O.U.			30.47	773.8	59.9	15.5	63	SW			2		8	W		0	0		
Lecce			30.34	770.6	53.1	11.7	50	SW	4.3	1.9			1			0	0		
Cosenza			30.46	773.3	58.6	14.8	48	SE			2		0			0	0		
Catania, (Sicily)			30.47	774.0	59.7	15.4	44	SW			4		0			0	0		
Riposto																			
Palermo			30.41	772.3	57.2	14.0	52	NE			2		2			0	0		Prof. F. Brioschi.
Naples, S. R.—(Sub-Series)																			

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.96	760.9	49.6	9.8		W			5								
Groningen			29.65	753.1	50.9	10.5		SW			7								
Helder			29.69	754.1	46.0	7.8		SSW			6								
Utrecht			29.79	756.7	54.1	12.3		SW			7		5						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.50	749.3	42.4	5.8	67	N	17.2	7.7			10			0	0		
Christiania			29.56	750.9	28.4	2.0	92	NE	4.9	2.2			10			0.335	8.5	Fog.	
Tromsö			29.40	746.7	32.9	0.5	92	SW			2		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.82	757.4			65.8	18.8	66	ENE	15.0	6.7			9						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.97	761.3	35.4	1.9	100	W	7	3			10						Astronomical Obs.
Wilna			29.84	759.9	30.0	— 0.6	84	SSE	4	2			9						Astronomical Obs.
Dorpat			29.95	760.7	21.9	— 5.6	83	ESE	9	4			1						Physical Cabinet.
St. Petersburg			29.98	761.4	25.7	— 3.5	74	SSE	9	4			0						Central Physical Obs.
Kieff			30.21	767.2	25.7	— 3.5	69	SSE	9	4			7						Physical Cabinet.
Nikolaiev			30.28	769.1	28.4	— 2.0	68	NW	4	2			6						
Kertch			30.18	766.5	29.8	— 1.2	84	NNW	10.1	4.5			4						Lagorio.
Moscow			30.18	766.5	14.4	— 9.8	67	N	10.1	4.5			7						Meteorological Obs.
Lugan			29.95	760.6	15.8	— 9.0	60	NNW	13	6			6						Meteorological Obs.
Archangel			29.91	759.8	21.6	— 5.8	74	Calm	0	0			0						Ogorodnikof.
Tiflis			30.07	763.7	34.9	1.6	75	SE	7.8	3.5			9						Physical Obs.
Astrakhan			30.01	762.2	26.8	— 2.9	34	SW	10.1	4.5			5			Blank	Blank	Snow	Sebastianof.
Kasan			30.01	762.2	4.1	—15.5	81	E	10.1	4.5			4						Physical Cabinet.
Orenburg			30.18	766.5	18.7	— 7.4	89	SW	4	2			10						Tschernischef.
Ekaterinburg			30.19	766.9	8.2	—13.2	60	Calm	0	0			0						Meteorological Obs.
Kasaly			30.07	763.7	20.8	— 6.2	76	W	7.8	3.5			10						Bobrof.
Tashkend			30.22	767.6	40.3	4.6	61	NE	7.8	3.5			0						Michelson.
Barnaul			30.47	773.8	1.2	—17.1	63	SW	4	2			0						Meteorological Obs.
Yeniseisk			29.65	753.0	10.0	—12.2	69	S	20	9			10						Parks.
Irkutsk																			Usolzef.
Oorga			30.08	764.1	25.2	— 3.8	99	Calm	0	0			0						Mossin.
Peking, (China)			30.07	763.8	47.8	8.8	58	Calm	0	0			3						Physical Observatory.
Nertchinsk			30.13	765.2	16.3	— 8.7	91	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.30	769.5	65.3	18.5	50	NE	5.1	2.3		5		8		0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.63	752.7	27.3	— 2.6	96	SSW			2		10			0	0		
Hernosand			29.88	759.0	31.1	— 0.5		S			1		10			0.094	2.4		
Stockholm			29.63	752.7	34.9	1.6	85	S			1		10			0.114	2.90		
Wisby			29.99	754.2	35.1	1.7	96	S			1		5			0	0		
Upsala—(Sub-Series)			29.66	753.3	32.2	0.1	95	SW			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.85	732.7			64.8	18.3	45	W			2		10			0	0		The Observatory.
Zurich	28.59	726.2			59.4	15.2	61	W			4		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.6mm.; Thermometer, +11°.6 C.; Relative Humidity, —18 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.04	763.0	51.1	10.6	62	N			6		5			Blank	Blank	Rain	
Constantinople			30.25	768.3	37.2	3.9	66	SW	5.6	2.5			10		NE	0.315	8.00		
Fao, (Persian Gulf)			30.12	765.0	63.5	17.5		SE			1		10						
Salonica			30.21	767.4	62.4	16.9		NW			2		2						
Valona			30.30	769.5	52.2	11.2		NW			2		2						
Varna			30.16	766.0	39.2	4.0		NE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Brockville			30.22	767.6	12	—11.1		Calm	0	0			10		W	0	0		
Cape Roziere, Quebec			30.31	769.9	5	—15.0	75	NE	13	5.8		2	5	NE	NE	0	0		
Chatham, N. B.			30.27	768.8	8	—13.3	89	Calm	0	0		8	0			0	0		
Charlottetown, P. E. Island			30.20	767.1	18	— 7.8	90	N	14	6.2			10			0	0		
Father Point, Quebec			30.34	770.6	6	—14.4	67	SW	14	6.2		0	5	W		0	0		
Fort Garry, Manitoba			29.95	760.7	4	—15.6	95	SW	4	1.8		5	2	W	SW	0.04	1.0		
Halifax, N. S.			30.10	764.5	18	— 7.8	81	N	8	3.6		2	0			0	0		
Kingston, Ontario			30.31	769.9	16	— 8.9	93	Calm	0	0		8	0	SE		0	0		
Montreal, Quebec			30.19	766.8	18	— 7.8	84	SE	6	2.7		8	2	E		0	0		
Ottawa, Ontario			30.19	766.8	4	—15.6	60	Calm	0	0		2	Fog			0	0		
Parry Sound, Ontario			30.13	765.3	— 1	—18.3	84	NE	5	2.2		0	0			0	0		
Port Dover, Ontario			30.15	765.8	8	—13.3	100	Calm	0	0		10	0	W		0	0		
Port Stanley, Ontario			30.12	765.0	5	—15.0	92	E	4	1.8		5	0	W		0	0		
Quebec, Quebec			30.18	766.6	20	— 6.7	85	NE			4		10		NE	0	0		
Saugeen, Ontario			30.10	764.5	6	—14.4	88	NE	2	0.9		10	0			0	0		
Stayner			30.10	764.5	7	—13.9	88	Calm	0	0		8	0	NW		0	0		
Sydney, C. B.			30.09	764.3	16	— 8.9	81	NE	10	4.5		0	0			0	0		
Toronto, Ontario			30.15	765.8	11	—11.7	94	Calm	0	0			Fog			0	0	Fog	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 1—10.	Clouds. Amount. Up'er 1—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.22	767.6	14	—10.0	100	Calm	0	0		10	Haze			0	0		
Alpena, Mich.			30.13	762.7	11	—11.7	79	Calm	0	0			10			0	0		
Atlantic City, N. J.			30.22	767.6	27	— 2.8	88	NW	4	1.8		2	0	W		0	0		
Augusta, Ga.			30.18	766.6	38	3.3	100	Calm	0	0			Fog			0	0	Fog	
Baltimore, Md.			30.20	767.1	33	0.6	69	Calm	0	0			10			0	0		
Barnegat, N. J.			30.12	765.0	31	— 1.1	89	W	2	0.9		Haze	0			0	0		
Benton, Montana			30.25	768.4	31	— 0.6	79	SW	8	3.6		8	0	NW		0	0		
Bismarck, Dakota			30.03	762.8	7	—13.9	53	NW	4	1.8		8	0	N		0.02	.5		
Boston, Mass.			30.22	767.7	32	0.0	79	N	2	0.9			10		W	0.03	0.8		
Breckenridge, Minn.			30.07	763.8	7	—13.9	89	NW	8	3.6		8	0	NW		0.12	3.0		
Buffalo, N. Y.			30.13	765.3	18	— 7.8	84	Calm	0	0		2	Sm'e	W		0	0		
Burlington, Vt.			30.22	767.6	16	— 8.9	66	S	1	0.4		0	2			0	0		
Cairo, Ill.			30.11	764.8	37	2.8	53	SW	5	2.2		2	0			0	0		
Cape Hatteras, N. C.			30.19	766.8	44	6.7	84	NE	8	3.6		2	0			0	0		
Cape Henry, Va.			30.23	767.8	39	3.9	91	Calm	0	0			10			0	0		
Cape May, N. J.			30.22	767.6	29	— 1.7	77	N	4	1.8		10	0	W		0	0		
Charleston, S. C.			30.21	767.3	47	8.3	85	W	4	1.8		2	Fog	W		0	0		
Cheyenne, W. T.			30.06	763.5	21	— 6.1	60	NW	16	7.2		2	0			0	0		
Chicago, Ill.			29.64	752.8	36	2.2	90	SW	5	2.2			10			0	0		
Cincinnati, Ohio			30.05	763.3	30	— 1.1	78	S	6	2.7		10	0			0	0		
Cleveland, Ohio			30.04	763.0	24	— 4.4	87	SE	8	3.6			10		SW	0	0	Threatening	
Colorado Springs, Col.			30.09	764.3	24	— 4.4	74	N	6	2.7		0	0			0	0		
Corsicana, Texas			30.20	767.1	44	6.7	84	NW	6	2.7		0	0			0	0		
Davenport, Iowa			30.01	762.2	27	— 2.8	77	W	16	7.2			10		W	0	0		
Denver, Col.			30.06	766.1	23	— 5.0	60	S	4	1.8		0	0			0	0		
Detroit, Mich.			30.03	762.7	20	— 6.7	85	SE	3	1.3		10	Sm'e	W		0	0		
Dodge City, Kansas			30.03	762.7	25	— 3.9	75	NW	2	0.9		0	0			0	0		
Dubuque, Iowa			29.99	761.7	24	— 4.4	87	W	12	5.4			10			0	0	Threatening	
Duluth, Minn.			29.95	760.7	22	— 5.6	85	Calm	0	0			10			0.01	0.3		
Eastport, Me.			30.23	767.8	24	— 4.4	87	N	3	1.3		5	0	NW		0	0		
Erie, Penn.			30.09	764.3	25	— 3.9	87	SE	12	5.4		5	Haze			0	0		
Escanaba, Mich.			29.94	760.5	18	— 7.8	84	N	6	2.7			10		N	0.05	1.3	Light snow	
Fort Gibson, I. T.			30.24	768.1	31	— 0.6	77	NE	1	0.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.13	765.3	20	— 6.7	77	NW	12	5.4		0	0			0	0		
Galveston, Texas			30.17	766.3	60	15.6	88	E	5	2.2		5	0	NW		0	0		
Grand Haven, Mich.			29.91	759.7	25	— 3.9	74	E	5	2.2			10			0	0		
Indianapolis, Ind.			29.96	761.0	33	0.6	69	S	6	2.7		5	Sm'e	W		0	0		
Indianola, Texas			30.15	765.8	60	15.6	94	E	8	3.6		0	5			0.02	0.5		
Jacksonville, Fla.			30.20	767.1	43	6.1	83	Calm	0	0		0	Fog			0	0		
Keokuk, Iowa			30.01	762.2	30	— 1.1	68	NW	19	8.5			10		NW	0	0	Threatening	
Key West, Fla.			30.16	766.1	68	20.0	70	N	5	2.2		Haze	Sm'e			0	0		
Kittyhawk, N. C.			30.24	768.1	40	4.4	91	Calm	0	0		10	0	N		0	0		
Knoxville, Tenn.			30.19	766.8	32	0.0	89	NE	4	1.8		0	0			0	0		
La Crosse, Wis.			29.99	759.7	30	— 1.1	100	W	2	0.9			10		W	0.06	1.5	Light snow	
Leavenworth, Kan.			30.21	767.3	29	— 1.7	77	W	1	0.4		0	0			0	0		
Lexington, Ky.			30.11	764.8	33	0.6	80	S	14	6.3		8	0	SW		0	0		
Long Branch, N. J.			30.22	767.6	35	1.7	79	N	1	0.4		2	Haze			0	0		
Louisville, Ky.			30.03	762.7	32	0.0	89	S	4	1.8		5	Fog			0	0		
Lynchburg, Va.			30.21	767.3	34	1.1	79	Calm	0	0		5	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.94	760.5	25	— 3.9	75	SE	4	1.8			10		SE	0	0		
Memphis, Tenn.			30.18	766.6	38	3.3	80	SW	1	0.4		8	0	SW		0	0		
Milwaukee, Wisconsin			29.89	759.2	28	— 2.2	88	S	5	2.2			10			Blank	Blank	Light snow	
Mobile, Ala.			30.26	768.6	42	5.6	91	SW	2	0.9		0	Fog			0	0	Fog	
Montgomery, Ala.			30.25	768.1	40	4.4	91	Calm	0	0		2	Fog			0	0		
Morgantown, W. Virginia			30.15	765.8	24	— 4.4	66	Calm	0	0		1	Haze	W		0	0		
Mt. Washington, N. H.			29.96	761.0	8	—13.3	78	Calm	0	0		0	8			0	0		
Nashville, Tenn.			30.12	765.0	35	1.7	80	Calm	0	0		5	0	W		0	0		
New Haven, Conn.			30.22	767.6	22	— 5.6	85	NE	10	4.5		5	2	NW	NW	0.04	1.0		
New London, Conn.			30.23	767.8	24	— 4.4	67	N	7	3.1		0	0			0.01	0.3		
New Orleans, La.			30.22	767.6	52	11.1	83	E	4	1.8		5	Sm'e	E		0	0		
Newport, R. I.																			
New York, N. Y.			30.23	767.8	29	— 1.7	67	E	6	2.7		0	Fog			0	0		
Norfolk, Va.			30.22	767.6	39	3.9	86	SE	1	0.4		10	0	W		0	0		
North Platte, Neb.			29.91	759.7	28	— 2.2	77	W	10	4.5		0	0			0	0		
Omaha, Neb.			30.16	766.1	23	— 5.0	86	W	7	3.1		2	0			0	0		
Oswego, N. Y.			30.19	766.8	16	— 8.9	92	S	6	2.7		10	0	W		0	0		
Peck's Beach			30.24	768.1	29	— 1.7	89	NE	2	0.9		2	2			0	0		
Pembina, D. T.			29.97	761.2	— 1	—18.3	68	Calm	0	0		0	5			0	0		
Philadelphia, Penn.			30.24	768.1	27	— 2.8	65	NE	4	1.8		2	8	W	W	0	0		
Pike's Peak, C. T.			29.80	756.9	— 5	—20.6	100	N	40	17.9		0	0			0	0		
Pittsburgh, Penn.			30.11	762.2	29	— 1.7	89	SW	8	3.6			10		SW	0	0		
Port Huron, Mich.			30.07	763.8	17	— 8.3	83	Calm	0	0			10		W	0	0		
Portland, Maine			30.26	768.6	26	— 3.3	76	N	1	0.4		10	Haze			0	0		
Portland, Or.			30.44	773.2	34	1.1	89	Calm	0	0			Fog			0	0		
Punta Rassa, Fla.			30.20	767.1	52	11.1	72	N	9	4.0		2	Haze			0	0		
Rochester, N. Y.			30.15	765.8	11	—11.7	79	SW	8	3.6		2	5	W		0	0		
Salt Lake City, Utah			30.34	770.6	28	— 3.9	50	SW	1	0.4		0	0			0	0		
Sandy Hook, N. J.			30.20	767.1	30	— 1.1	78	NE	4	1.8		0	Haze			0.01	0.3		
San Diego, Cal.			30.22	767.6	57	13.9	48	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.25	768.1	15	—10.0	72	NW	8	3.6		0	0			0	0		
Santa Fe, N. M.			29.90	759.4	17	— 8.3	51	N	4	1.8		0	0			0	0		
Savannah, Georgia			30.19	766.8	49	9.4	85	SW	4	1.8		2	Fog	SW		0	0		
Shreveport, La.			30.20	767.1	51	10.6	93	Calm	0	0			10			Blank	Blank	Light rain	
Springfield, Mass.			30.24	768.1	17	— 8.3	67	Calm	0	0		8	Sm'e	SW		0.02	0.5		
St. Louis, Mo.			30.09	764.3	34	1.1	69	NW	16	7.2			10		W	0	0		
St. Marks, Fla.			30.23	767.8	40	4.4	91	W	4	1.8		0	0			0	0		
St. Paul, Minn.			29.87	758.7	24	— 4.4	87	NW	8	3.6			10			0.37	9.4		
St. Paul's Island, Alaska			28.80	731.5	29	— 1.7	77	SSE	13	5.8		0	5			0.34	8.6		
Squan Beach, N. J.			30.21	767.3	26	— 3.3	75	N	3	1.3		0	Sm'e			0	0		
Toledo, Ohio			29.94	760.5	28	— 2.2	77	SE	4	1.8			10			0	0		
Tybee Island, Ga.			30.22	767.6	49	9.4	93	Calm	0	0		0	Sm'e			0	0		
Vicksburg, Miss.			30.27	768.8	45	7.2	67	S	1	0.4		2	0	SW		0	0		
Virginia City, Mon.			29.92	760.0	22	— 5.6	72	SW	8	3.6		0	0			0	0		
Washington, D. C.			30.23	767.8	32	0.0	79	Calm	0	0			10		W	0	0		
Wilmington, N. C.			30.18	766.6	45	7.2	84	N	1	0.4		2	0	SW		0	0		
Wood's Hole, Mass.			30.24	768.1	32	0.0	68	SW	1	0.4		5	0	SW		0	0		
Wytheville, Va.			30.01	762.2	27	— 2.8	77	NW	1	0.4		0	0			0	0		
Yankton, D. T.			30.19	766.5	14	—10.0	72	NW	1	0.4		2	0	NW		0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbados, W. I.			30.09	764.3	80	26.7		E	4	1.8		5	5	E		0	0		
Point-a-pitre, G'd'loupe, "			30.00	762.0	74	23.3		E				0	5		E	3.0	76.2		
Havana, Cuba, W. I.			29.94	760.5	76	24.4	76	S	2	0.9		8	0	E		0	0		
Kingston, Jamaica, W. I.			30.25	768.3	73	22.8	93	Calm	0	0			10			0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.91	759.7	73	22.8	76	N	2	0.9		2	0			0	0		
St. Georges, Bermudas			30.03	762.7	64	17.8	58	NW	19	8.5		0	5	NW		0.005	0.13		
Honolulu, Oahu, S. I.			30.03	762.7	66	18.9		NW			1					0	0	Threatening	
Makawao, Maui, S. I.			29.84	757.9	58.5	14.7	87	S	12.8	5.7		0	1			0.43	10.9		
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.76	755.9	— 4	—20.0	100	W	8	3.6		3	0	NW		0.02	0.5		
Clifton, Jamaica, W. I.			30.13	765.3	62	16.7		N	2	0.9		2	5	N		0.01	0.3		C. Partridge.
St. Johns, Newfoundland			29.84	757.9	14	—10.0	100	NE					10			0	0	Snowing	John Delaney.
St. Johns Porto Rico W. I.			30.10	764.5	73.4	23.0	81	S			1	2	7			0	0		Leon M. Acuña.
Ellyria, Ohio	29.21	741.9			25	— 3.9	100	S	4	1.8		0	10			0	0		H. M. Redington.
Indianola, Iowa	29.25	742.9			32	0.0		SW				0	8			0.01	0.3		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2395 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 10, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0															
Algiers			30.15	765.7	73.4	23.0	44	NW			1		3			0	0	Lt. sirocco	Charnot.
La Calle			30.20	767.0															Peter.
Tunis			30.21	767.4	76.5	24.7	40	WNW			3		2						Kuntz.
Sfax			30.24	768.0												0	0		Jacques.
Saida			30.13	765.2	73.9	23.4		W			5		2						Chauvey.
Tebessa			30.20	767.0												0	0		Grosjean.
Geriville			30.14	765.5	61.2	16.3		S			4		2						Colin.
Laghouat			30.13	765.4	62.6	17.0	38	S			1		0			0	0		Bernadach.
Biskra			30.19	766.8	71.4	21.9	41	NE			1		0						Poinsignon.
																0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.98	761.5	53.8	12.1	52	SW			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.78	756.5	34.9	1.6	93	W			5		10			0.158	4.0		I. R. Observatory.
Eperies			29.84	758.0	31.5	— 0.3	96	S			3		10			0.047	1.20		Julius Mikolik.
Gratz			29.97	761.2	55.	12.9	42	NW			5		0			0	0		Andreas Rospini.
Hermannstadt			29.86	758.5	42.4	5.8	64	NW			3		8			0	0		Prof. Reissenberger.
Kremsmünster			30.13	765.2	43.7	6.5	70	NW			5		8			0.059	1.5		Prof. C. Wagner.
Lemberg			29.70	754.3	37.2	2.9	86	W			4		10			0.335	8.5		Dr. T. Stanecki.
Nyiregyhaza			29.89	759.3	35.1	1.8	93	W			1		10			Blank	Blank		Habsuda Daniel.
Pola			30.09	764.4	49.5	9.7	90	ESE			1		10			0	0		I. R. Hydrographic Office
Szegedin			29.97	761.1	42.4	5.8	100	SW			1		7			0	0		Karl Stancel.
Trieste			30.09	764.3	45.0	7.2	98	ENE			1		10						Prof. V. Farolfi.
Vienna			29.94	760.5	47.5	8.6	41	WNW			6		2			0.043	1.1		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.20	767.1			45.7	7.6	68	N			1		4		N	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.48	774.2	43.0	6.1		E	7	3.1			3			0.020	5.08		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.41	772.1	48	8.9		SE			3		5						William McNeil.
Armagh Observatory			30.36	771.1	46.6	8.1		SE	22	9.8			3						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.40	772.1	47.0	8.3		ESE			2		1						The Liverpool Obs.
Birr Castle			30.25	768.3	47.6	8.7		SE			3–4		10						J. Dreyer.
Bradford			30.39	771.9	45.1	7.3		E			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.44	773.2	47.0	8.3		NNE			1		0						H. Todd.
Cape Town, Cape Colony			29.87	758.7	63	17.2		NW			3		10					Rainy	Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.89	759 2			62.6	17.0	50	WSW	12	5.4			10						The Royal Observatory.
Cardington			30.45	773.4	47.0	8.3		E					1						John McLaren.
Carlisle			30.44	773.2	51.4	10.8		SW					2			0	0		T. Bell.
Chatham			29.84	757.9	47.4	8.6		E			1		0						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.96	761.0	80.0	26.7		SE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.38	771.6	43.2	6.2		E			6		5						R. E. Power.
Donaghadee			30.38	771 6	47	8.3		SE			2		3						J. Mac Gowan, Jr.
Dover			30.45	773.4	44	6.7		NE			3		2						J. Costello.
Dublin																			
Durham Observatory			30.44	773.2	47.3	8.5		NE					1						G. Goldney.
Eccles, (near Manchester)			30.43	772 9	49.5	9.7		SE	4.6	2.1			0					Mist	Thomas Mackereth.
Falmouth Observatory			30.30	769.6	48.0	8.9		E	28	12.5			1						The Fa mouth Obs.
Fort Napier, (Natal)			29.70	754.4	82.0	27.8		E			3		5						Pvt. G. Salmon.
Galway			30.16	766.1	48	8.9		SE			5		10						Queen's College.
Gibraltar, (Mediterranean)			30.06	763.5	66.0	18.9		E			3		2					Haze	Sgt. J. Brewster.
Glasgow Observatory			30.42	772.7	45.5	7.5		SE			2		5					Mist	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.45	773.4	45	7.2		N			3		8						G. T. Watson.
Greenwich Royal Obs			30.42	772.7	50.5	10.3		ENE			1		10						The Royal Observatory.
Guernsey			30.31	769.9	50	10.0		ESE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.40	772.1	45.4	7.4		E					5					Haze	Moorside Observatory.
Halifax, (Nova Scotia)			30.15	765.8	20.6	— 6.3		NE			1		9					Mist	Corp'l J. Y. Thompson.
Helston			30.25	768.3	51	10.6		E			7		4						W. B. Moyle.
Holyhead			30.36	771.1	47	8.3		SSE			1		10						John Tilston.
Hull Park																			
Kew Observatory			30.43	772.9	47.1	8.4		E	12	5.4								Mist	The Met. Office.
Kingstown			30.37	771.4	45	7.2		SSE			4		2						George Mitchell.
Lampeter																			
Leicester			30.43	772.9	49.0	9.4		E			1		1						William J. Harrison.
Llandudno			30.37	771.4	50.3	10.2		ESE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.33	770.4	62.0	16.7		SW			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.41	772.4	45	7.2		Calm			0		5						William D. Penny.
Nassau, (Bahamas)			30.10	764.5	72.6	22.6		NW			2		4						Surgeon I. Jameson.
North Shields			30.48	774.2	43	6.1		E			2		2						John Wm. Irvine.
Nottingham			30.15	765.8	49.3	9.6		ESE			1	3		E					E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.42	772.7	50.3	10.2		ENE			3		5						St. Mary's College.
Oxford, Radcliffe Obs			30.39	771.9	48	8.9		E			1		2						Radcliffe Observatory.
Plymouth			30.31	769.9	50	10.0		E			5		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.23	767.8	48	8.9		ESE			5		5						W. Kennedy.
Saint Ann's Head			30.35	770.9	46	7.8		ESE			5		5						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.44	773.2	43.1	6.2		S	13	5.8			0						Rev. Dr. Clouston.
Scarboro'			30.46	773.7	42.6	5.9		NNE			1		1						F. Heard.
Scutari, (Turkey)			30.03	762.7	48.0	8.9		SSW			2		8						W. H. Lyne.
Sheffield			30.43	772.9	46.4	8.0		SE			2		4						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.42	772.7	51.0	10.6		E			4		1			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.44	773.2	48.4	9.1		NE			1		1						Rev. C. J. Steward.
Stonyhurst Observatory			30.42	772.7	45.7	7.6		E			1							Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.33	770.4	43	6.1		SSE			4		5						John Smith.
Strathfield Turgiss			30.38	771.6	49.3	9.6		E			1		0						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.38	771.6	43	6.1		Calm			0		5						William Lawrence.
Taunton College																			
Thurso			30.43	772.9	45	7.2		S			2		4						John Trotter.
Truro Royal Institution			30.24	768.1	52	11.1		E			6		2						Royal Institution.
Valencia			30.07	763.8	51.1	10.6		SE	45	20.1			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.42	772.7	45.6	7.6		E			2		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.88	759.0	36.3	2.4	84	N			4		10					Snow & rain	
Faröe			30.17	766.3	43.7	6.5	63	N			4		1						
Godthaab, (Greenland)			29.68	753.9	— 8.1	—22.3		NE			4		10						
Stykkisholm, (Iceland)			29.34	745.1	42.8	6.0	84	S			9		10					Rain	
Thorshavn, (Faröe)			30.25	768.4	47.1	8.4	70	SSW			5		8						
Vestervig			30.17	766.3	41.0	5.0	80	NW			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.5	56.3	13.5	88						2						Normal School.
Alengon			30.35	770.8	55.4	13.0	58	E			3		0			0	0		Normal School.
Amiens			30.35	770.9	49.6	9.8	80	NE			4		0			0	0		Normal School.
Beaumette, (near Angers)			30.25	768.3	54.5	12.5	52	E	21.9	9.8			5		W	0	0		Beaumette Observatory.
Beauvais			30.41	772.3	46.2	7.9	57	ENE			2		0		E	0	0		Normal School.
Besançon			30.37	771.5	52.9	11.6	70	NE			2		0			0	0		Normal School.
Bourges			30.31	769.8	55.4	13.0		N			8	1		N		0	0		Normal School.
Brest			30.15	765.8	57.0	13.9	62	ESE			3		0			0	0		Naval Observatory.
Caen			30.37	771.3	52.9	11.6	66	WSW			2		0		NW	0	0		Normal School.
Carcassonne																			
Chartres			30.31	769.9	49.1	9.5		ENE			2		0			0	0		Normal School.
Chaumont			30.34	770.7	47.5	8.6		NW			4		0			0.059	1.5		Normal School.
Le Mans			30.20	767.0	50.9	10.5	90	E			3		0			0	0		Normal School.
Mirecourt			30.19	766.9	45.7	7.6		N			2		0			0	0		Normal School.
Orleans			30.28	769.0	48.6	9.2	63	NE			2		0			0	0		Normal School.
Paris			30.40	772.2	48.4	9.1		NE			3		0			0	0	Fog	National Observatory.
Parthenay			30.21	767.2	56.3	13.5	69	NE			2		5		SW	0	0		
La Roche sur Yon			30.21	767.2	54.7	12.6	66	NNE			2		8		SE	0	0		Normal School.
Rouen			30.37	771.3	52.0	11.1	48	NE			3		0			0	0		Normal School.
Saint Lo			30.36	771.1	50.9	10.5	52	E			3		0			0	0		Normal School.
Villefranche			30.30	769.5	57.0	13.9	91	NNE			6		2		N	0	0		Normal School.
FRENCH SUB-SERIES.																			
Gorée, (Senegambia)			29.97	761.2	71.4	21.8	68	NNE			4		0			0	0		Père Pascall.
Mont-Louis	24.61	625.0			57.4	14.1	39	WSW	9.4	4.2			8		SW	0	0		—. Falguère.
Montsouris (near Paris)			30.37	771.3	48.9	9.4	49	NNE	7.8	3.5			0			0	0		Marié Davy.
Perpignan	30.02	762.4			59.5	15.3	74	NE	3.8	1.7			5		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.37	771.3	50.4	10.2	46	NE			2		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.26	768.7	54.1	12.3	57	ENE			3		0			0	0		C. Marquet.
Versailles, (near Paris)			30.36	771.1	49.6	9.8	48	E			3		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.15	765.9	43.3	6.3	56	W			7		7			0	0		Prof. Hoh.
Berlin			29.95	760.6	39.2	4.0	83	NW			4		10			0.012	0.3	Rainy	Prof. Arndt.
Breslau			29.80	756.8	36.3	2.4	87	W			10		10			Blank	Blank	Rain & snow	Dr. P. Neugebauer.
Carlsruhe			30.33	770.3	47.5	8.6	63	SW			25		5			0.067	1.7	Rain	A. Lenz.
Cassel			30.19	766.9	43.5	6.4	62	NW			8		8			0	0		Dr. H. Mohl.
Cologne			30.33	770.3	39.6	4.2	90	E			4		5			0	0		Dr. Gaithe.
Emden			30.34	770.5	41.2	5.1	81	NNW			4		0			0	0		Prof. Prestel.
Frankfort on the Main			30.39	771.9	47.7	8.7	63	NW			3		3			0	0		Physical Society.
Friedrichshafen			30.29	769.4	45.5	7.5	79	W					2			0	0		M. Wilhelm.
Hamburg			30.14	765.5	45.5	7.5	72	NW			6		10			0.031	0.8		W. Reinart.
Kiel			30.09	764.4	43.7	6.5	68	NW			5		5			0.067	1.7		Prof. G. Karsten.
Königsberg			29.48	748.7	37.8	3.2	93	NE			2		9			0.354	9.0		Prof. E. Luther.
Köslin			30.89	759.3	34.2	1.2		NW			6		10			0.339	8.6		Dr. T gert.
Leipsic			30.04	763.9	40.6	4.8	64	WNW			6		10			0	0		Prof. Bruhns.
Münster			30.39	769.6	46.2	7.9	64	NW			5		10			0	0		Prof. E. Heis.
Posen			29.73	755.2	35.4	1.9	93	W			8		10			0.035	0.9		Dr. Magener.
Strassburg, (in Alsace)			30.34	770.6	46.2	7.9	54	N					1			0	0		Hartwig and Fulk.
Stuttgart			30.33	770.4	45.1	7.3	56	NW					4			0.126	3.2		Mr. Wurth.
Thorn			29.53	750.0	33.3	1.7	87	NW			6		10			0	0	Snow	Dr. n senbalg.
Treves, (Trier)			30.39	769.5	47.3	8.5	43	W			5		1			0	0		Prof. Kleach.
Wustrow			29.95	760.6	32.9	1.5	100	WNW			7		10			0.055	1.4		E. F. schutz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.13	765.3	42.8	6.0	50	SE			2		10			0	0		
Mondovi			30.13	765.2	39.9	4.5	82	NW			2		10	WSW		0	0		
Genoa			30.13	765.2	3.8	12.1	80	SE	5.6	2.5			10	SE		Blank	Blank		
Pavia			30.09	76 .3	46.6	8.1	68	SW			1		10			0	0		
Verona			30.05	763.3	48.9	9.4	71	E			1		10			0	0		
Padua			30.07	763.8	44.4	6.9	71	NW	0.7	0.3			7	WNW		0	0		
Parma																			
Bologna			30.12	765.1	51.6	10.9	31	WSW			2		10	E		0	0		
Livorno			30.16	766.0	53.6	12.0	90	SSW	4.9	2.2			10			0	0		
Urbino			30.14	765.5	50.7	10.4	87	S W			4		5			0	0		
Ancona			30.08	764.0	47.8	8.8	84	SW			2		10			0	0		
Siena			30.13	765.4	53.8	12.1	99	SW	0	0			10	SW		0	0		
Rome			30.17	766.3	59.5	15.3	73	S	6.9	3.1			10	SSW		0	0		
Naples, O.U.			30.21	767.2	61.2	16.2	69	SW			2		9	SW		0	0		
Lecce			30.12	765.0	56.1	13.4	62	SE	6.9	3.1			9			0	0		
Cosenza			30.26	768.5	58.8	14.9	48	SSW			2		6	NW		0	0		
Catania, (Sicily)			30.21	767.3	58.8	14.9	50	ENE			4		0			0	0		
Liposto																			
Palermo			30.16	766.1	59.4	15.2	55	NE			2		3			0	0		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.45	773.5	46.0	7.8		NE			3								
Groningen			30.26	768.5	42.4	5.8		NNW			5								
Helder			30.36	771.2	39.9	4.4		NW			4								
Utrecht			30.34	770.5	46.4	8.0		NNW			4		5						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.31	769.8	41.0	5.0	45	N	19.2	8.6			0			0	0		
Christiania			30.13	765.4	41.0	5.0	33	N	24.2	10.8			0			0	0		
Tromsö					35.6	2.0	93												

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.52	749.8			67.3	19.8	54	ESE	11.2	5.0			10						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.52	749.9	33.8	1.0	98	WSW	16	7			10			Blank	Blank	Snow	Astronomical Obs.
Wilna			29.58	751.4	30.2	— 1.0	93	SE	10.1	4.5			10						Astronomical Obs.
Dorpat			29.78	756.5	27.0	— 2.8	83	ESE	9	4			10						Physical Cabinet.
St. Petersburg			29.86	758.4	25.3	— 3.7	76	SE	9	4			10						Central Physical Obs.
Kieff			29.89	759.2	20.1	— 6.6	97	SSE	31	14			10			Blank	Blank	Snow	Physical Cabinet.
Nikolaiev			30.02	762.5	26.6	— 3.0	78	SE	7.8	3.5			9						
Kertch			30.09	764.4	31.1	— 0.5	75	ESE	4	2			9						Lagorio.'
Moscow			30.22	767.5	7.7	—13.5	64	S	10.1	4.5			0						Meteorological Obs.
Lugan			30.10	764.5	9.1	—12.7	61	NW	7.8	3.5			0						Meteorological Obs.
Archangel			29.93	760.1	23.4	— 4.8	86	W	10.1	4.5			10						Ogorodnikof.
Tiflis			30.13	765.3	36.0	2.2	47	NNW	31	14			3						Physical Obs.
Astrakhan			30.09	764.2	14.5	— 9.7	64	W	10.1	4.5			7						Sebastianof.
Kasan			30.15	766.6	10.8	—11.8	71	NNE	4	2			9						Physical Cabinet.
Orenburg			30.13	765.2	15.4	— 9.2	94	Calm	0	0			3						Tschernischef.
Ekaterinburg			30.15	765.8	13.6	—10.2	47	W	4	2			0						Meteorological Obs.
Kasaly			30.13	765.3	23.9	— 4.5	68	SSW	7.8	3.5			5						Bobrof.
Tashkend			30.02	762.6	21.6	— 5.8	62	NE	7.8	3.5			9						Michelson.
Barnaul			29.89	759.1	9.3	—12.6	81	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.77	756.2	7.5	—13.6	64	S	13	6			0						Marks.
Irkutsk																			Usolzef.
Oorga			29.99	761.8	25.7	— 3.5	100	Calm	0	0			2						Mossin.
Peking, (China)			30.04	762.9	42.8	6.0	65	Calm	0	0			3						Physical Observatory
Nertchinsk			29.74	755.2	25.5	— 3.6	82	NE	4	2			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.07	763.8	67.5	19.7	51	E	9.6	4.3		4		W		0	0		Royal Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.86	758.4	39.0	4.4	59	N			7		8			0.043	1.1		
Hernosand			29.91	759.7	39.6	4.2	52	N			7		3			0.004	0.1		
Stockholm			29.80	757.0	34.9	1.6	82	NNE			4		10			0	0	Rain	
Wisby			29.84	758.0	32.0	0.0	96	E			4		10			0	0		
Upsala—(Sub-Series)			29.87	758.8	34.3	1.3	92	N			6		10			Blank	Blank		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.77	730.7			52.7	11.5	67	NNE			2		2			0	0		The Observatory.
Zurich	28.61	726.7			50.2	10.1	58	NW			1		2			0.606	15.4		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.7mm.; Thermometer, +4°.7 C.; Relative Humidity, +4 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.18	766.6	56.5	13.6	57	SW			2		5						
Constantinople			30.04	762.9	48.0	8.9	69	SW	4.5	2.0			10		W	0.465	11.8		
Fao, (Persian Gulf)			30.11	764.8	64.4	18.0		NW		3	3		10						
Salonica			29.96	761.0	56.3	13.5		E			1		10						
Valona			30.05	763.2	56.5	13.6		W			2		5						
Varna			29.92	760.0	41.0	5.0		SE			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Metres per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			29.86	758.4	23	— 5.0		Calm	0	0			10		NE	0.20	5.1	Light snow.	
Cape Roziere, Quebec			30.13	765.3	6	—14.4	89	SW	22	9.8		5	8	SW		0	0		
Chatham, N. B.			30.20	767.1	10	—12.2	89	NE	1	0.4			Haze			0	0	Threatening	
Charlottetown, P. E. Island			30.21	767.3	12	—11.1	96	E	6	2.7			10			0	0		
Father Point, Quebec			30.02	762.5	7	—13.9	65	S	1	0.4		Haze				0	0		
Fort Garry, Manitoba			29.85	758.2	9	—12.8	96	SW	9	4.0		0	2		NW	0	0		
Halifax, N. S.			30.11	764.8	19	— 7.2	91	NE	2	0.9			8		SE	0.01	0.3	Threatening	
Kingston, Ontario			29.82	757.4	29	— 1.7	94	W	9	4.0			10			0.05	1.3	Light snow.	
Montreal, Quebec			29.87	758.7	19	— 7.2	89	S	7	3.1			10		E	Blank	Blank	Light snow.	
Ottawa, Ontario			29.85	758.2	21	— 6.1	71	NE	5	2.2			Fog			Blank	Blank	Light snow.	
Parry Sound, Ontario			29.76	755.9	23	— 5.0	93	SE	7	3.1			10		SE	0.05	1.3	Light snow.	
Port Dover, Ontario			29.83	757.7	27	— 2.8	88	SW	12	5.4			10			0.06	1.5	Light snow.	
Port Stanley, Ontario			29.88	758.9	26	— 3.3	83	SW			4		10		W?	0.17	4.3	Light snow.	
Quebec, Quebec			29.90	759.5	19	— 7.2	75	E			2		10		E	0	0		
Saugeen, Ontario			29.78	756.4	24	— 4.4	93	W	9	4.0			10			0.03	0.8	Light snow.	
Stayner			29.75	755.6	26	— 3.3	94	Calm	0	0		Haze	0			0.10	2.5		
Sydney, C. B.			30.30	769.6	4	—15.6	95	SW	3	1.3			10			0	0		
Toronto, Ontario			29.81	757.2	28	— 2.2	95	SW	7	3.1			10		SW	0.09	2.3	Light snow.	

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Byt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.88	758.9	22	— 5.6	100	Calm	0	0			10			0	0		
Alpena, Mich.			29.78	756.4	21	— 6.1	85	NW	3	1.3		2	2	NW	NW	0.10	0.3		
Atlantic City, N. J.			29.93	760.2	38	3.3	90	SW	6	2.7			10		SW	0.06	1.5		
Augusta, Ga.			30.08	764.0	49	9.4	71	NW	6	2.7			10		SW	0	0		
Baltimore, Md.			29.95	760.7	37	2.8	80	W	1	0.4		0	Sm'e			0	0		
Barnegat, N. J.			29.86	758.4	35	1.7	90	S	1	0.4			10		S	0.05	1.3	Threatening	
Benton, Montana			29.82	757.4	36	2.2	80	W	14	6.3			10		W	0	0		
Bismarck, Dakota			29.80	756.9	11	—11.7	79	E	1	0.4			10			0	0		
Boston, Mass.			29.95	760.7	34	1.1	79	SE	4	1.8			10			0	0		
Breckenridge, Minn.			30.06	763.5	1	—17.2	85	SW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.83	757.7	26	— 3.3	88	W	16	7.2			10			0.01	0.3	Light snow	
Burlington, Vt.			29.86	758.4	28	— 2.2	77	S	4	1.8			10		W	0	0		
Cairo, Ill.			30.09	764.3	37	2.8	62	W				2	0	W		0	0		
Cape Hatteras, N. C.			29.96	761.0	48	8.9	92	SW	5	2.2		8	0	SW		0.03	0.8		
Cape Henry, Va.			29.95	760.7	48	8.9	78	W	12	5.4		2	0			0	0		
Cape May, N. J.			29.94	760.5	37	2.8	90	NW	8	3.6		0	5		W	0	0		
Charleston, S. C.			30.04	763.0	52	11.1	59	W	6	2.7		5	Sm'e	W		0	0		
Cheyenne, W. T.			29.74	755.4	33	0.6	79	W	20	8.9			10			0	0		
Chicago, Ill.			29.68	753.9	28	— 2.2	77	SW	6	2.7		2	5	W		0	0		
Cincinnati, Ohio			30.03	762.7	36	2.2	70	S	6	2.7		5	0	NW		0	0		
Cleveland, Ohio			29.89	759.2	27	— 2.8	88	SW	12	5.4		2	5	W	N	0.01	0.3		
Colorado Springs, Col.			29.84	757.9	22	— 5.6	72	NW	3	1.3		0	2		N	0	0		
Corsicana, Texas			30.27	768.8	41	5.0	73	W	5	2.2		0	0			0	0		
Davenport, Iowa			30.02	762.5	24	— 4.4	93	W	14	6.2			10			Blank	Blank		
Denver, Col.			29.84	757.9	31	— 0.6	58	S	5	2.2		2	0			0	0		
Detroit, Mich.			29.87	758.7	27	— 2.8	82	SW	9	4.0			10		SE	0.01	0.3	Light snow.	
Dodge City, Kansas			29.83	770.4	25	— 3.9	62	S	10	4.5		0	0			0	0		
Dubuque, Iowa			30.01	762.2	24	— 4.4	74	N	8	3.6			10			0.04	1.0		
Duluth, Minn.			29.89	759.2	24	— 4.4	74	NW	8	3.6		Haze	8	NW	N	0	0		
Eastport, Me.			30.10	764.5	28	— 2.2	88	S	12	5.4		10		W		0	0		
Erie, Penn.			29.87	758.7	29	— 1.7	89	SW	20	8.9			10			Blank	Blank	Light snow.	
Escanaba, Mich.			29.76	755.9	23	— 5.0	86	S	3	1.3			10			0.05	1.3	Light snow.	
Fort Gibson, I. T.			30.18	766.6	30	— 1.1	83	NE	6	2.7		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.95	760.7	21	— 6.1	85	SE	4	1.8			5		SE	0	0		
Galveston, Texas			30.27	768.8	53	11.7	68	NE	14	6.2		5	0	W		0.44	11.2		
Grand Haven, Mich.			29.86	758.4	31	— 0.6	84	W	18	8.0		5	5	W	W	Blank	Blank		
Indianapolis, Ind.			29.98	761.5	32	0.0	79	SW	4	1.8		2	Sm'e	W		0	0		
Indianola, Texas			30.29	769.4	56	13.3	74	NE	22	9.8		5	0	W		0.47	11.9		
Jacksonville, Fla.			30.10	764.5	54	12.2	68	E	4	1.8		5	0	SW		0	0		
Keokuk, Iowa			29.99	761.7	30	— 1.1	78	W	5	2.2		0	2			0	0		
Key West, Fla.			30.11	764.8	69	20.6	61	N	6	2.7		0	2			0	0		
Kittyhawk, N. C.			29.95	760.7	46	7.8	92	W				2	0	W		0	0		
Knoxville, Tenn.			30.12	765.0	33	0.6	79	SW	2	0.9		0	0			0	0		
La Crosse, Wis.			29.98	761.5	28	— 2.2	88	NW	8	3.6			10		NW	0.02	0.5		
Leavenworth, Kan.			30.14	765.5	32	0.0	79	NW	6	2.7		0	0			0	0		
Lexington, Ky.			30.08	764.0	35	1.7	70	S	10	4.5		5	0	SW		0	0		
Long Branch, N. J.			29.93	760.2	36	2.2	90	W	6	2.7			10			0.11	2.8		
Louisville, Ky.			30.06	763.5	31	0.6	68	SE	4	1.8		5	0	W		0	0		
Lynchburg, Va.			29.98	761.4	42	5.6	49	W	5	2.2		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.71	754.6	31	— 0.6	79	Calm	0	0			10			0	0		
Memphis, Tenn.			30.17	766.3	39	3.9	72	SW	1	0.4		5	0	NW		0	0		
Milwaukee, Wisconsin			29.91	759.7	26	— 3.3	76	W	10	4.5			10			0.05	1.3		
Mobile, Ala.			30.23	767.8	52	11.1	79	NW	8	3.6		2	2	SW		0.02	0.5		
Montgomery, Ala.			30.18	766.6	49	9.4	71	Calm	0	0		5	Sm'e	SW		0	0		
Morgantown, W. Virginia			29.99	761.7	33	0.6	79	SW	21	9.4			10			0	0		
Mt. Washington, N. H.			29.79	756.7	10	—12.2	100	SW	72	32.2		2	8	W		Blank	Blank	Threatening	
Nashville, Tenn.			30.13	765.3	34	1.1	79	Calm	0	0		0	0			0	0		
New Haven, Conn.			29.96	761.0	53	0.6	89	Calm	0	0			10		NE	0	0		
New London, Conn.			29.96	761.0	34	1.1	79	E	5	2.2		0	8			0	0		
New Orleans, La.			30.26	768.6	56	13.3	69	N	4	1.8		8	Fog	W		0.10	2.5		
Newport, R. I.																			
New York, N. Y.			29.93	760.2	34	1.1	79	NW	5	2.2			Fog			0	0	Fog.	
Norfolk, Va.			29.96	761.0	44	6.7	84	W	3	1.3		Fog	2			0	0		
North Platte, Neb.			29.63	752.6	31	— 0.6	79	S	3	1.3			10			0	0		
Omaha, Neb.			30.09	764.3	25	— 3.9	87	NW	6	2.7		8	0	NW		0	0		
Oswego, N. Y.			29.85	758.2	32	0.0	84	W	9	4.0			10			0.02	0.5	Light snow.	
Peck's Beach			29.93	760.2	38	3.3	90	NW	12	5.4			10		W	0.05	1.3		
Pembina, D. T.			29.88	758.9	9	—12.8	78	Calm	0	0			5			0	0		
Philadelphia, Penn.			29.94	760.5	38	3.3	71	N	1	.4		2	Haze	W		0.01	0.3		
Pike's Peak, C. T.			29.71	754.6	5	—15.0	100	W	52	23.2			Fog			0	0		
Pittsburgh, Penn.			29.95	760.7	30	— 1.1	83	W	8	3.6			10		W	Blank	Blank	Light snow.	
Port Huron, Mich.			29.85	758.2	26	— 3.3	88	W	10	4.5		5	5			0.05	1.3		
Portland, Maine			29.98	761.5	36	2.2	89	S	1	0.4			Fog			0.02	0.5	Fog.	
Portland, Or.			30.52	775.2	42	5.6	83	S	6	2.7			10			0.08	2.0		
Punta Rassa, Fla.			30.15	765.8	58	14.4	57	N	12	5.4		0	2			0	0		
Rochester, N. Y.			29.82	757.4	29	— 1.7	89	W	16	7.2		5	2			0	0		
Salt Lake City, Utah			29.96	761.0	36	2.8	46	SE	6	2.7			10			0	0		
Sandy Hook, N. J.			29.93	760.2	35	1.7	90	W	4	1.8			10		SW	0.05	1.3		
San Diego, Cal.			30.09	764.3	47	8.3	54	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.19	766.8	50	10.0	86	NW	4	1.8		0	Haze			0	0		
Santa Fe, N. M.			29.75	755.6	21	— 6.1	57	E	4	1.8		0	0			0	0		
Savannah, Georgia			30.06	763.5	53	11.7	86	SW	6	2.7			10			0	0		
Shreveport, La.			30.27	768.8	41	5.0	74	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.94	760.5	26	— 3.3	77	S	1	0.4			10			0.08	2.0	Heavy snow	
St. Louis, Mo.			30.06	763.5	36	2.2	70	W	12	5.4		0	5		W	0	0		
St. Marks, Fla.			30.12	765.0	53	11.7	79	NW	4	1.8			10			0	0		
St. Paul, Minn.			29.88	758.9	25	— 3.9	88	NW	9	4.0		0	8			0	0		
St. Paul's Island, Alaska			29.47	748.5	34	1.1	71	SW	11	4.9		0	8			0.02	0.5		
Squan Beach, N. J.			29.94	760.5	35	1.7	90	W	2	0.9			10			0	0		
Toledo, Ohio			29.83	758.4	30	— 1.1	78	SW	11	4.9			10		SW	0.01	0.3		
Tybee Island, Ga.			30.06	763.5	53	11.7	59	W	8	3.6			Fog			0	0	Fog.	
Vicksburg, Miss.			30.39	769.6	45	7.2	60	W	2	0.9			Sm'e			0.04	1.0		
Virginia City, Mon.			29.61	752.1	24	— 4.4	87	SW	4	1.8			10			0.35	8.9		
Washington, D. C.			29.97	762.2	31	— 0.6	100	NW	1	0.4			Fog			0	0	Fog.	
Wilmington, N. C.			30.02	762.5	49	9.4	64	W	6	2.7		2	2	W		0	0		
Wood's Hole, Mass.			29.97	761.2	37	2.8	62	E	4	1.8		2	2	W		0	0		
Wytheville, Va.			29.84	757.9	35	1.7	70	W	3	1.3		0	0			0	0		
Yankton, D. T.			30.16	766.1	12	—11.1	70	NE	1	0.4		8	0	NW		0.02	0.5		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	81	27.2		NE	6	2.7		5	5	E		0	0		
Pointe-à-Pitre, G'd'loupe, "			30.00	762.0	74	23.3		E				0	2		E	0	0		
Havana, Cuba, W. I.			29.91	759.7	73	22.8	76	NW	2	0.9		5	0	SE		0	0		
Kingston, Jamaica, W. I.			30.23	767.8	75	23.9	97	Calm	0	0		2	0	E		0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.87	758.7	72	22.2	76	NE	1	0.4		0	2		SW	0	0		
St. Georges, Bermudas			30.04	763.0	63	17.2	70	WSW	18	8.0		2	8	SW		0.050	1.27		
Honolulu, Oahu. S. I.			30.03	762.7	60	15.6		Calm			0	5	5			0	0		
Makawao, Maui. S. I.			29.88	758.9	59	15.0	94	Calm	0	0		0	8			2.35	58.7	Rainy	
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.91	759.7	—22	—30.0		W	9	4.0		9	0	NW		0	0		
Clifton, Jamaica, W. I.			30.12	765.0	61	16.1		N	1	0.4		5	8	N		0.21	5.3		C. Partridge.
St. Johns, Newfoundland			30.41	772.4	6	—14.4	100	S				0	5			0	0		John Delaney.
St. Johns Porto Rico, W. I.			30.08	763.9	71.6	22.0	91	SE			1	3	3			1.004	25.50		Leon M. Acuña.
Ellyria, Ohio	29.11	739.4			27	— 2.8	88	SW	12	5.4		0	7			0	0		H. M. Redington.
Indianola, Iowa	29.21	741.9			20	— 6.7		SW				0	8			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 11, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.92	760.0															Charnot.
Algiers			29.95	760.8	73.0	22.8	50	NNW			1		1			0	0		Peter.
La Calle			29.95	760.6															Kuntz.
Tunis			29.95	760.7	76.1	24.5	42	W			3		3			0	0		Jacques.
Sfax			29.97	761.2															Chauvey.
Saïda			29.93	760.2	71.6	22.0		NW			2		2			0	0		Grosjean.
Tebessa			29.95	760.7															Colin.
Geriville			29.94	760.5	70.0	21.1		NW			2		2			0	0		Bernadach.
Laghouat			29.96	760.9	72.5	22.5	21	NW			2		3			0	0		Poinsignon.
Biskra			29.95	760.8	76.0	24.4	19	ESE			2		4			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.08	763.9	48.9	9.4	52	SW			1		2			0	0		Prof. Ivan Stozir.
Buda-Pesth			30.00	762.1	35.2	1.8	89	W			3		10			0.055	1.4		I. R. Cen. M. I., Hungar.
Cracow			29.99	761.7	38.1	3.4	85	Calm			0		10			0.012	0.3		I. R. Observatory.
Eperies			30.03	762.7	46.2	7.9	57	NW			2.5		5			0	0		Julius Mikolik.
Gratz			30.00	762.0	38.3	3.5	71	NW			3		8			0	0		Andreas Rospini.
Hermanustadt			30.12	765.0	37.8	3.2	63	NW			3		10			0	0		Prof. Reissenberger.
Kremsmünster			30.04	762.9	37.2	2.9	79	S			2		10			0.047	1.2		Prof. C. Wagner.
Lemberg			30.01	762.2	36.7	2.6	96	Calm			0		8			Blank	Blank		Dr. T. Stanecki.
Nyiregyhaza			30.01	762.2	48.6	9.2	84	WNW			1		3			0.047	1.20		Habzsuda Daniel.
Pola			30.05	763.2	41.0	5.0	78	W			2		10			0	0		I. R. Hydrographic Off'e
Szegedin			29.99	761.8	57.2	14.0	35	ENE			2		5						Karl Stancel.
Trieste			30.10	764.8	35.4	1.9	82	NW			2		10			0.055	1.4		Prof. V. Farolfi
Vienna																			I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.01	762.2			42.3	5.7	69	SE			3		5		ENE	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.48	774.2	41.2	5.1		SSE	28	12.5			1			0	0		William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan			30.32	770.1	57	13.9		ESE			4		4						William McNeil.
Armagh Observatory			30.22	767.6	44.0	6.7		ESE	23	10.3			4						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.26	768.6	44.6	7.0		E			5		1						The Liverpool Obs.
Birr Castle			30.08	764.0	47.7	8.7		SE			3		5						J. Dreyer.
Bradford			30.29	769.4	42.1	5.6		E			4		3						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.28	769.1	45.0	7.2		ENE			2		1						H. Todd.
Cape Town, Cape Colony			30.08	764.0	72	22.2		SE			1		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.12	765.0			62.9	17.2	43	S E	4	1.8			6						The Royal Observatory.
Cardington			30.28	769.1	46.0	7.8		E					1						John McLaren.
Carlisle			30.35	770.9	45.1	7.3		SE					2			0	0		T. Bell.
Chatham			29.55	750.6	42.0	5.6		E			5		2						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.96	761.0	82.3	27.9		SE			1		6						Sgt. W. F. Hopkins
Dartmoor			30.16	766.1	36.0	2.2		E			8		3						R. E. Power.
Donaghadee			30.26	768.6	44	6.7		S E			5		0						J. Mac Gowan, Jr.
Dover			30.23	767.8	42	5.6		E			5		2						J. Costello.
Dublin																			
Durham Observatory			30.37	771.4	43.3	6.3		ESE					1						G. Goldney.
Eccles, (near Manchester)			30.30	769.6	43.1	6.2		SE	6.0	2.7			5					Mist	Thomas Mackereth.
Falmouth Observatory			30.04	763.0	43.1	6.2		ESE	43	19.2			3						The Falmouth Obs.
Fort Napier, (Natal)			29.82	757.4	78.5	25.8		E			3		3						Pvt. G. Salmon.
Galway			29.96	761.0	48	8.9		ESE			5		4						Queen's College.
Gibraltar, (Mediterranean)			30.09	764.3	66.2	19.0		E			3		4						Sgt. J. Brewster.
Glasgow Observatory			30.34	770.6	42.0	5.6		ESE			4		4						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.31	769.9	40	4.4		ENE			4		2						G. T. Watson.
Greenwich Royal Obs.			30.24	768.1	44.7	7.1		E			5		0						The Royal Observatory.
Guernsey			30.04	763.0	43.5	6.4		NE			6		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.30	769.6	41.4	5.2		ESE					7						Moorside Observatory
Halifax, (Nova Scotia)			29.91	759.7	28.0	— 2.2		E			1		10					Snow	Corp'l J. Y. Thompson.
Helston			29.98	761.5	48	8.9		E			7		2						W. B. Moyle.
Holyhead			30.19	766.8	45	7.2		ENE			5		0						John Tilston.
Hull Park																			
Kew Observatory			30.23	767.8	43.9	6.6		ESE	33	14.8	8		1						The Met. Office.
Kingstown			30.19	766.8	43	6.1		SSE			5		1						George Mitchell.
Lampeter																			
Leicester			30.28	769.1	45.8	7.8		E			4		0						William J. Harrison
Llandudno			30.24	768.1	43.8	6.6		SE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	67.0	19.4		SW			2		0						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.38	771.6	45	7.2		SE			2		2						William D. Penny.
Nassau, (Bahamas)			30.15	765.8	70.3	21.3		NW			5		9						Surgeon F. Jameson
North Shields			30.41	772.4	41	5.1		ESE			5		1						John Wm. Irvine.
Nottingham			30.31	769.9	45.1	7.3		ENE			5		1		ENE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.26	768.6	44.6	7.0		ENE			5-6		4						St. Mary's College.
Oxford, Radcliffe Obs.			30.21	767.3	45	7.2		E			4		1						Radcliffe Observatory.
Plymouth			30.06	763.5	43.5	6.4		E			6		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.02	762.5	45	7.2		ESE			6		2						W. Kennedy.
Saint Ann's Head			30.09	764.3	42	5.6		ESE			6		4						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.43	772.9	41.1	5.1		S E	39	17.4			0						Rev. Dr. Clouston.
Scarboro'			30.40	772.1	40.0	4.4		ESE			3		0						F. Heard.
Scutari, (Turkey)			30.06	763.5	45.2	7.3		SW			1		10						W. H. Lyne.
Sheffield			30.31	769.9	44.6	7.0		SE			4		4						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.33	770.4	45.9	7.7		E			5		0			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.25	768.3	46.0	7.8		ENE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.32	770.1	42.2	5.7		E			4		5					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.26	768.6	46	7.8		SE			5		5						John Smith.
Strathfield Turgiss			30.20	767.1	44.8	7.1		E			2		0						Charles H. Griffith.
Streatley Vicarage			30.28	769.1	45.0	7.2		E			6		0						Rev. John Slatter.
Sumburgh Head, Shetland			30.46	773.7	44	6.7		S			4		5						William Lawrence.
Taunton College																			
Thurso			30.41	772.4	44	6.7		SSE			5		4						John Trotter.
Truro, Royal Institution			29.96	761.0	48	8.9		E			9		4						Royal Institution.
Valencia			29.85	758.2	48.0	8.9		SE	33	14.8			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.19	766.8	44.3	6.8		E			6		0						S. H. Miller.
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.37	771.3	37.2	2.9	66	ENE			2		1						
Fanöe			30.43	772.9	39.2	4.0	70	ENE			4		1						
Godthaab, (Greenland)			29.49	749.1	- 3.8	—19.9		NE			4		0						
Stykkisholm, (Iceland)			29.23	742.5	45.0	7.2	74	S			9		10					Rain	
Thorshavn, (Faröe)			30.25	768.4	44.8	7.1	69	SSE			7		3						
Vestervig			30.48	774.2	37.4	3.0	73	NE			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Ajaccio			29.83	757.6	55.8	13.2	80						2						Normal School.
Alençon			30.20	767.0	47.1	8.4	53	NE			4		2			0	0		Normal School.
Amiens			30.11?	764.9?	45.7	7.6	91	NE			8		0			0	0		Normal School.
Beaumette, (near Angers)			29.99	759.4	51.3	10.7	39	E	26.0	11.9			5		SSW	0	0		Beaumette Observatory.
Beauvais			30.13	765.4	43.7	6.5	56	E			3		2		E	0	0		Normal School.
Besançon			30.01	762.2	47.3	8.5	52	E			3		0			0	0		Normal School.
Bourges			29.89	759.2	47.4	8.4		NE			0			NE		0	0		Normal School.
Brest			29.82	757.4	50.2	10.1	54	E			4		5		E			Fog	Naval Observatory.
Caen			30.16?	766.1?	50.0	10.0	57	S			2		0		E	0	0		Normal School
Carcassonne																			
Chartres			30.04	762.9	41.6	7.0		NE			4		0			0	0		Normal School.
Chaumont			30.02	762.5	44.4	6.9		NW			6		0			0	0		Normal School.
Le Mans			29.98	761.5	44.8	7.1	42	E			4		0			0	0		Normal School.
Mirecourt			30.31	769.8	45.1	7.3		NNE			4		0			0	0		Normal School.
Orleans			30.01	762.2	39.9	4.4	80	NE			2		0			0	0		Normal School.
Paris			30.07	763.6	45.9	7.7		ENE			3		0			0	0	Fog	National Observatory.
Parthenay			29.85	758.2	53.6	12.0	63	NE			6		2		W	0.003	0.1		
La Roche sur Yon			29.84	757.9	53.6	12.0	83	NE			4		2		N	0	0		Normal School.
Rouen			30.09	764.4	47.1	8.4	48	N			6		0			0	0		Normal School.
Saint Lo			30.24	768.2	45.3	7.5	44	E			6		0			0	0		Normal School.
Villefranche			29.99	761.8	49.3	9.6	85	NNE			1		0			0	0		Normal School.

FRENCH SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Gorée, (Senegambia)			29.86	758.5	73.9	22.3	62	NNE			4		0			0	0		Père Pascall.
Mont-Louis	24.70	627.4			54.5	12.5	53	SSW	8.9	4.0			6		SSW	0	0		—. Falguère.
Montsouris (near Paris)			30.06	763.6	45.9	7.7	46	E	7.4	3.3			0		E	0	0		Marié Davy.
Perpignan	29.76	755.8			56.3	13.5	73	NNE	5.6	2.5			5		NE	0.004	0.1		Dr. Fines.
Saint Maur, (near Paris)			30.06	763.6	48.0	8.9		ENE			3		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.91	759.8	48.9	9.4	42	ENE			4		0			0	0		C. Marquet.
Versailles, (near Paris)			30.06	763.5	46.4	8.0	48	E			4		0			0	0		Dr. A. Bérigny.
Z.-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Bamberg			30.17	766.3	37.6	3.1	65	NW			5		10			0	0		Prof. Hoh.
Berlin			30.24	768.1	35.1	1.7	96	NE			1		10			0	0	Rain	Prof. Arndt.
Breslau			30.09	764.4	33.6	0.9	95	WNW			3		10			0.299	7.6	Snow	Dr. P. Neugebauer.
Carlsruhe			30.15	765.7	41.9	5.5	62	NE			2–5		9			0	0		A. Leuz.
Cassel			30.24	768.0	38.7	3.7	69	NE			2		10			0	0		Dr. H. Mohl.
Cologne			30.28	769.0	38.5	3.6	69	ENE			3		3			0	0		Dr. Gaithe.
Emden			30.44	773.2	40.8	4.9	75	NE			1		5			0	0		Prof. Prestel.
Frankfort on the Main			30.31	769.9	41.4	5.2	71	NE			4		7			0	0		Physical Society.
Friedrichshafen			30.06	763.5	42.8	6.0	85	NE					0			0	0		M. Wilhelm.
Hamburg			30.38	771.6	37.9	3.3	68	NE			4		10			0	0		W. Reinart.
Kiel			30.36	771.2	37.0	2.8	69	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			30.19	766.8	28.9	-1.7	85	NE			6		9			0.035	0.9	Snow	Prof. E. Luther.
Köslin			30.47	773.8	33.1	0.6		NE			4		10			0.193	4.9		Dr. T gert.
Leipsic			30.24	768.1	33.1	0.6	96	NNE			2		10			0.051	1.3	Snow	Prof. Bruhns.
Münster			30.26	768.6	43.0	6.1	63	NE			5		4			0	0		Prof. E. Heis.
Posen			30.20	767.0	33.1	0.6	100	N			5		10			0.114	2.9		Dr. Magener.
Strassburg, (in Alsace)			30.10	764.5	43.0	6.1	55	NE					0			0	0		Hartwig and Fulk.
Stuttgart			30.15	765.9	41.2	5.1	57	NE					7			0	0		Mr. Wurth.
Thorn			30.11	764.7	32.4	0.2	86	NE			5		10			0.382	9.7		Dr. [illegible]senbalg.
Treves, (Trier)			30.12	765.0	41.7	5.4	61	NE			7		10			0	0		Prof. Flesch.
Wustrow			30.35	771.0	35.6	2.0	59	NE			7		10			0.090	2.3		E. F. Schutz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer.
Moncalieri			30.03	762.8	40.5	4.7	89	ENE			1		1			Blank	Blank		
Mondovi			30.04	763.0	39.4	4.1	92	NW			2		10			0	0	Light rain	
Genoa			29.96	761.0	51.3	10.7	66	NE	3.1	1.4			10	SE		0.024	0.6		
Savia			30.02	762.6	42.4	5.8	82	S			1		10			0	0		
Verona			29.96	761.0	48.0	8.9	83	E			1		2			0	0		
Padua			29.99	761.8	48.0	8.9	73	ESE	3.1	1.4			4	ENE		0	0		
Parma																			
Bologna			30.00	762.0	48.2	9.0	47	WSW			2		10			0	0		
Livorno			29.94	760.4	54.3	12.4	83	NE	4.3	1.9			10			0	0		
Urbino			30.04	763.1	46.0	7.8	100	NE			2		10			0.165	4.2		
Ancona			29.99	761.7	49.3	9.6	87	W			2		10			0.079	2.0		
Siena			29.93	760.3	53.1	11.7	78	SSE	0	0			10	S		0	0		
Rome			29.96	760.9	61.0	16.1	68	S	6.9	3.1			10	SSE		0	0		
Naples, O. U.			29.99	761.8	50.9	10.5	60	SW			2		2	SW		0	0		
Lecce			30.02	762.5	57.0	13.9	70	SE	3.1	1.4			9			0	0		
Cosenza			29.95	760.7	64.4	18.0	48	SSE			1		4	WNW		0	0		
Catania, (Sicily)			30.02	762.4	60.8	16.0	66	SE			2		0			Blank	Blank	Clearing	
Lipposto																			
Palermo			29.80	759.3	62.6	17.0	59	NE			4		7			0	0		Prof. F. Brioschi.
Naples, S. R.—(Sub-Series)																			

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.27	768.9	42.4	5.8		ENE			5								
Groningen			30.30	769.5	39.6	4.2		NE			4								
Helder			30.33	770.4	37.2	2.9		NNE			4		5						
Utrecht			30.25	768.4	43.2	6.2		NNE			4								

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.58	776.7	38.3	3.5	55	NNW	5.1	2.3			0			0	0		
Christiania			30.58	776.8	41.4	5.2	58	SSW	1.6	0.7			0			0	0		
Tromsö					41.0	5.0	95									0.224	5.7		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.74	755.5			59.7	15.4	78	SW	22.4	10.0			10						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.04	762.9	36.5	2.5	87	NE	4	2			10						Astronomical Obs.
Wilna			30.22	767.6	28.9	— 1.7	83	E	4	2			10						Astronomical Obs.
Dorpat			30.32	770.2	30.7	— 0.7	77	NE	4	2			7						Physical Cabinet.
St. Petersburg			30.23	767.7	30.0	— 1.1	80	NW	7	3			10						Central Physical Obs.
Kieff			30.36	771.1	15.4	— 9.2	75	ESE	9	4			1						Physical Cabinet.
Nikolaiev			30.25	768.3	24.1	— 4.4	70	NE	13	6			5						
Kertch			30.15	765.9	28.9	— 0.7	60	E	16.8	7.5			4						Lagorio.
Moscow			30.34	770.7	16.7	— 8.5	58	SW	10.1	4.5			7						Meteorological Obs.
Lugan			30.28	769.0	18.7	— 7.4	67	NE	7.8	3.5			0						Meteorological Obs.
Archangel			30.09	764.3	16.5	— 8.6	87	NW	16.8	7.5			5						Ogorodnikof.
Tiflis			30.04	763.0	36.0	2.2	67	N	4	2			10						Physical Obs.
Astrakhan			30.18	766.5	18.3	— 7.6	81	WNW	7.8	3.5			10						Sebastianof.
Kasan			30.11	764.8	9.1	—12.7	80	W	4	2			7						Physical Cabinet.
Orenburg			30.23	767.8	5.4	—14.3	91	SE	7.8	3.5			4						Tschernischef.
Ekaterinburg			29.97	761.2	15.4	— 9.2	56	W	7.8	3.5			1						Meteorological Obs.
Kasaly			29.59	751.5	12.0	—11.1		SE	22	10			10						Bobrof.
Tashkend			30.19	766.7	43.9	6.6	78	Calm	0	0			10			Blank	Blank	Rain	Michelson.
Barnaul			29.84	758.0	14.5	— 9.7	81	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.69	754.0	4.6	—15.2	69	NW	7.8	3.5			0						Varks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			29.92	760.0	55.2	12.9	39	Calm	0	0			0						Physical Observatory
Nertchinsk			29.95	760.7	19.2	— 7.1	58	NNW	7.8	3.5			0						Meteorological Obs.
Vladivostock																			Kurdakof.
Nikolaievsk, on the Amoor																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.96	760.9	55.8	13.2	71	SW	13.4	6.0			9			0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.38	771.7	43.5	6.6	57	NNW			2		7			0	0		
Hernosand			30.47	773.8	45.0	7.2	44	NNW			2		7			0	0		
Stockholm			30.43	772.8	37.0	3.0	42	NNE			4		0			0	0		
Wisby			30.39	771.9	33.1	0.6	82	NE			2		3			0.09	2.3		
Upsala—(Sub-Series)			30.47	773.9	36.5	2.5	56	N			4		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.52	724.5			44.1	6.7	59	N			4		1			0	0		The Observatory.
Zurich	28.37	720.7			43.2	6.2	54	E			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.4mm.; Thermometer, +0°.4 C.; Relative Humidity, +3 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.20	767.0	60.8	16.0	70	SW			3		10			Blank	Blank	Rain	
Constantinople			30.05	763.3	47.7	8.7	86	SW	2.2	1.0			10		WSW	0.142	3.6		
Fao, (Persian Gulf)			30.37	771.4	60.8	16.0		NW			3		2						
Salonica			29.98	761.5	61.2	16.2		NW			2		10						
Valona			29.97	761.3	56.5	13.6		W			2		2						
Varna			30.02	762.5	48.2	9.0		N			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.06	763.5	31	— 0.6		Calm	0	0		2	0	N		0.20	5.1		
Cape Roziere, Quebec			30.02	762.5	21	— 6.1	93	SW	13	5.8		5	8	SW	SW	0	0		
Chatham, N. B.			29.94	760.5	20	— 6.7	92	SE	1	0.4			10			0.03	0.8	Light snow	
Charlottetown, P. E. Island			30.00	762.0	21	— 6.1	97	E	4	1.8			10			0	0		
Father Point, Quebec			29.87	758.7	2	—16.7	89	S	2	0.9		0	Haze			0.01	0.3	Light snow	
Fort Garry, Manitoba			29.99	761.7	—15	—26.1	94	W	7	3.1		0	0			0	0		
Halifax, N. S.			29.86	758.4	27	— 2.8	92	E	2	0.9			10			Blank	Blank	Light snow	
Kingston, Ontario			30.11	764.8	21	— 6.1	93	Calm	0	0		0	0			0.02	0.5		
Montreal, Quebec			29.93	760.2	26	— 3.3	88	W	18	8.0			8			0.03	0.8		
Ottawa, Ontario			29.97	761.2	20	— 6.7	72	Calm	0	0		2	0	W		0	0		
Parry Sound, Ontario			29.98	761.5	20	— 6.7	85	SW	6	2.7		2	2	SW	SW	0	0		
Port Dover, Ontario			30.10	764.5	12	—11.1	100	S	2	0.9		2	0	SW		0	0		
Port Stanley, Ontario			30.07	763.8	9	—12.8	96	W	6	2.7		5	0	W		0.02	0.5		
Quebec, Quebec			29.83	757.7	20	— 6.7	100	NE			1		10		NE	0.01	0.3	Light snow	
Saugeen, Ontario			29.98	761.5	22	— 5.6	97	Calm	0	0		0	2			0.11	2.8		
Stayner			29.98	761.5	25	— 3.9	87	Calm	0	0		2	0			0	0		
Sydney, C. B.			30.05	763.3	15	— 9.4	93	NE	3	1.3			10		S	0	0		
Toronto, Ontario			30.03	762.7	23	— 5.0	72	W	4	1.8		0	0			0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.02	762.5	24	— 4.4	100	Calm	0	0		10	Fog	W		0.02	0.5		
Alpena, Mich.			29.92	760.0	8	—13.3	100	Calm	0	0		0	Fog			0.01	0.3	Fog	
Atlantic City, N. J.			30.15	765.8	32	0.0	84	W	4	1.8			10		W	0	0		
Augusta, Ga.			30.22	767.8	38	3.3	81	Calm	0	0		0	8			0	0		
Baltimore, Md.			30.13	765.3	36	2.2	80	Calm	0	0		5	Fog	W		0	0	Fog	
Barnegat, N. J.			30.12	765.0	31	— 0.6	79	W	1	0.4		5	0			0	0		
Benton, Montana			29.69	754.1	32	0.0	79	SW	16	7.2		2	2	N		0	0		
Bismarck, Dakota			29.65	753.1	16	— 8.9	83	SE	8	3.6			10			0.20	5.1	Threatening	
Boston, Mass.			29.95	760.7	30	— 1.1	68	NW	10	4.5		0	Haze			0.03	0.8		
Breckenridge, Minn.			29.82	757.4	10	—12.2	90	N	16	7.2			10			0.33	8.4		
Buffalo, N. Y.			30.05	763.3	25	— 3.9	75	SW	12	5.4			10		SW	0.01	0.3		
Burlington, Vt.			29.98	761.5	31	— 0.6	68	W	4	1.8		2	5			0.08	2.0		
Cairo, Ill.			29.82	757.4	47	8.3	41	S	12	5.4		8	0			0	0		
Cape Hatteras, N. C.			30.17	766.3	43	6.1	91	NE	4	1.8		Haze	Haze			0.01	0.3		
Cape Henry, Va.			30.18	766.6	42	5.6	81	S	4	1.8		Haze	0			0	0		
Cape May, N. J.			30.16	766.1	35	1.7	70	NW	6	2.7		0	0			0	0		
Charleston, S. C.			30.23	767.8	42	5.6	86	W	2	0.9		2	Sm'e			0	0		
Cheyenne, W. T.			29.72	754.9	18	— 7.8	67	SW	12	5.4		2	0			0	0		
Chicago, Ill.			29.50	749.3	33	0.6	80	SE	13	5.9			10			Blank	Blank	Light snow.	
Cincinnati, Ohio			30.00	762.0	37	2.8	71	SE	4	1.8		10	0			0.01	0.3		
Cleveland, Ohio			30.02	762.5	28	— 2.2	71	S	4	1.8		2	0			0	0		
Colorado Springs, Col.			29.77	756.1	18	— 7.8	68	Calm	0	0		0	0			0	0		
Corsicana, Texas			29.84	757.9	54	12.2	86	S	8	3.6			10		S	0	0		
Davenport, Iowa			29.59	751.6	32	0.0	79	E	4	1.8			10			Blank	Blank		
Denver, Col.			29.86	757.2	23	— 5.0	60	S	5	2.2		0	0			0	0		
Detroit, Mich.			29.98	761.5	23	— 5.0	79	SE	4	1.8		2	Haze			0	0		
Dodge City, Kansas			29.78	756.4	29	— 2.8	64	NW	10	4.5		0	0			0	0		
Dubuque, Iowa			29.71	754.6	31	— 0.6	95	SE	6	2.7			10			0.08	2.0	Light snow.	
Duluth, Minn.			29.65	753.1	29	— 1.7	88	Calm	0	0			10			0.02	0.5	Light snow.	
Eastport, Me.			29.85	758.2	29	— 1.7	100	SE	11	4.9			10			0.03	0.8	Light snow.	
Erie, Penn.			30.05	763.3	30	— 1.1	78	S	8	3.6		8	Haze			0	0		
Escanaba, Mich.			29.75	755.6	21	— 6.1	85	S	3	1.3			10		S	0.03	0.8		
Fort Gibson, I. T.			29.68	753.9	52	11.1	53	SW	18	8.0		8	0	W		0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.90	759.4	22	— 5.6	79	NW	5	2.2			10		W	0	0		
Galveston, Texas			29.76	761.0	62	16.7	88	SE	6	2.7			10		SW	0.02	0.5	Threatening	
Grand Haven, Mich.			29.80	756.9	27	— 2.8	77	S	10	4.5			10			Blank	Blank	Light snow.	
Indianapolis, Ind.			29.91	759.7	36	2.2	52	S	8	3.6			10		S	0	0		
Indianola, Texas			29.91	759.7	65	18.3	88	S	12	5.4			10			0	0		
Jacksonville, Fla.			30.22	767.6	43	6.1	95	Calm	0	0			Fog			0	0	Fog	
Keokuk, Iowa			29.46	748.3	39	3.9	63	S	7	3.1			10		S	0	0		
Key West, Fla.			30.15	765.8	67	19.4	51	NE	20	8.9		Haze	Sm'e			0	0		
Kittyhawk, N. C.			30.19	766.8	43	6.1	84	Calm	0	0		0	0			0	0		
Knoxville, Tenn.			30.15	765.8	30	— 1.1	89	SW	3	1.3		5	Fog			0	0		
La Crosse, Wis.			29.60	751.8	34	1.1	100	S	4	1.8			10		S	0.20	5.1	Light snow	
Leavenworth, Kan.			29.62	752.3	39	3.9	91	N	20	8.9			10			0	0		
Lexington, Ky.			30.01	762.2	71	21.7	71	SE	16	7.2		8	0			0	0		
Long Branch, N. J.			30.12	765.0	34	1.1	79	SW	4	1.8		0	0			0	0		
Louisville, Ky.			29.96	761.0	36	2.2	70	SE	4	1.8		5	Fog			0	0		
Lynchburg, Va.			30.18	766.6	37	2.8	80	Calm	0	0		0	Haze			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.71	754.6	26	— 3.3	75	SW	12	5.4			10			0	0		
Memphis, Tenn.			29.91	759.7	47	8.3	48	SE	12	5.4		5	5	SW		0	0		
Milwaukee, Wisconsin			29.72	754.9	28	— 2.2	100	SE	25	10.2			10			0.13	3.3	Heavy snow	
Mobile, Ala.			30.13	765.3	49	9.4	93	SW	4	1.8		0	Sm'e			0	0		
Montgomery, Ala.			30.15	765.8	42	5.6	79	Calm	0	0		8	Fog			0	0		
Morgantown, W. Virginia			30.09	764.3	33	0.6	71	SW	1	0.4		0	5			0	0		
Mt. Washington, N. H.			29.70	754.4	4	—15.6	100	NW	48	21.5			Fog			0	0		
Nashville, Tenn.			30.00	762.0	38	3.3	71	Calm	0	0		10	Haze	W		0	0		
New Haven, Conn.			30.07	763.8	31	— 0.6	79	W	5	2.2		0	Sm'e			0.05	1.3		
New London, Conn.			30.06	763.5	33	0.6	70	NW	5	2.2		0	0			0.03	0.8		
New Orleans, La.			30.06	763.5	52	11.1	76	SE	6	2.7		5	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.11	764.8	28	— 2.2	77	W	10	4.5		0	0			0	0		
Norfolk, Va.			30.19	766.8	40	4.4	82	SE	3	1.3		0	Fog			0	0		
North Platte, Neb.			29.57	751.1	26	— 3.3	75	NW	6	2.7		0	0			0	0		
Omaha, Neb.			29.73	755.1	26	— 3.3	75	NW	30	13.4			10		NW	0	0		
Oswego, N. Y.			30.04	763.0	31	— 0.6	85	SW	6	2.7		Haze	2			0.01	0.3		
Peck's Beach			30.17	766.3	31	— 0.6	100	W	5	2.2		2	2	SW		0	0		
Pembina, D. T.																			
Philadelphia, Penn.			30.16	766.1	31	— 0.6	68	W	7	3.1			10		W	0	0		
Pike's Peak, C. T.			29.57	751.1	— 4	—20.0	100	W	35	16.1		0	Fog			0	0		
Pittsburgh, Penn.			30.08	764.0	29	— 1.7	89	Calm	0	0		8	Haze	SW		0.01	0.3		
Port Huron, Mich.			30.01	762.2	21	— 6.1	85	S	9	4.0		2	0			0	0		
Portland, Maine			29.91	759.7	27	— 2.8	77	W	4	1.8		5	Haze	NW		0.33	8.4		
Portland, Or.			30.25	768.3	42	5.6	83	SW	12	5.4			10			0	0		
Punta Rassa, Fla.			30.21	767.3	54	12.2	83	N	6	2.7		1	Sm'e			0	0		
Rochester, N. Y.			30.03	762.7	29	— 1.7	89	SW	8	3.6			8			0	0		
Salt Lake City, Utah			29.93	760.2	31	— 0.7	68	SW	4	1.8			10			0.01	0.3	Snow	
Sandy Hook, N. J.			30.10	764.5	21	— 6.1	75	W	12	5.4		2	Sm'e	W		0	0		
San Diego, Cal.			29.90	759.4	46	7.8	92	E	4	1.8			10			0	0		
San Francisco, Cal.			30.04	763.0	51	10.6	72	Calm	0	0		0	Haze			0	0		
Santa Fe, N. M.			29.58	751.3	18	— 7.8	53	N	8	3.6		0	0			0	0		
Savannah, Georgia			30.23	767.8	46	7.8	77	Calm	0	0		2	Sm'e			0	0		
Shreveport, La.			29.94	760.5	49	9.4	71	SE	4	1.8		5	2	SW		0	0		
Springfield, Mass.			30.03	762.7	26	— 3.3	77	SE	2	0.9			2			0.08	2.0		
St. Louis, Mo.			29.62	752.3	47	8.3	48	S	16	7.2			10		S	0	0		
St. Marks, Fla.			30.19	766.8	40	4.4	96	Calm	0	0		0	0			0.01	0.3		
St. Paul, Minn.			29.49	749.0	26	— 3.3	83	NE	3	1.3			10			0.39	9.9		
St. Paul's Island, Alaska			30.04	763.0	34	1.1	61	SW	24	10.7		0	2			0.08	2.0		
Squan Beach, N. J.			30.13	765.3	30	— 1.1	68	W	4	1.8		5	0	W		0	0		
Toledo, Ohio			29.92	760.0	28	— 2.2	77	E	5	2.2		Haze	2		E	0	0		
Tybee Island, Ga.			30.24	768.1	53	11.7	73	Calm	0	0		1	Sm'e			0	0		
Vicksburg, Miss.			30.10	764.5	48	8.9	62	S	7	3.1		10	0	SW		0	0		
Virginia City, Mon.			29.43	757.5	23	— 5.0	86	SW	16	7.2			10			0	0		
Washington, D. C.			30.17	766.3	34	1.1	84	S	4	1.8		Haze	2		W	0	0		
Wilmington, N. C.			30.22	767.6	45	7.2	49	NW	3	3.1		0	0			0.05	1.3		
Wood's Hole, Mass.			30.00	762.0	32	0.0	68	W	14	6.2		0	0			0.15	3.8		
Wytheville, Va.			29.98	761.5	26	— 3.3	88	Calm	0	0			10			0.13	3.3		
Yankton, D. T.			29.81	757.2	22	— 5.6	76	N	25	11.2		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'dos, W. I.			30.11	764.8	80	26.7		NE	4	1.8		5	5	E		0	0		
Pointe-à-Pitre, G'd'loupe			30.02	762.5	74	23.3		E				8	2	E		0	0	Raining	
Havana, Cuba, W. I.			29.91	759.7	73	22.8	63	NE	6	2.7		0	0			0	0		
Kingston, Jamaica, W. I.			30.26	768.6	75	23.9	87	Calm	0	0		0	0			0	0		
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.90	759.4	73	22.8	81	N	4	1.8		0	2		N	0	0		
St. Georges, Bermudas			29.94	760.5	65	18.3	81	NW	38	17.0		10	8	WSW		0.060	1.5		
Honolulu, Oahu, S. I.			30.04	763.0	63	17.2		Calm			0	0	0			0	0		
Makawao, Maui, S. I.			29.96	761.0	60	15.6	94	Calm	0	0		0	2			0.42	15.7		
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.13	765.3	−37	−38.3		NW	3	1.3		0	0			0	0		
Clifton, Jamaica, W. I.			30.11	764.8	63	17.2		N	2	0.9		2	2	N		0	0		C. Partridge.
St. Johns, Newfoundland			30.31	769.9	12	−11.1	100	S				0	0			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.11	764.7	74.8	23.8	79	SE			1	0	0			0.079	2.00		Leon M. Acuña.
Ellyria, Ohio	29.19	741.4			26	−3.3	100	SE	4	1.8		0	2			0	0		H. M. Redington.
Indianola, Iowa	28.80	731.5			33	0.6		NW				0	10			0.01	0.3		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 12, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.97	761.2															Charnot.
Algiers			29.96	760.9	66.2	19.0	47	WNW			2		4			0	0		Peter.
La Calle			29.94	760.5															Kuntz.
Tunis			29.95	760.6	73.0	22.8	48	W			4		2			0	0		Jacques.
Sfax			29.97	761.2															Chauvey.
Saïda			30.00	762.0	68.0	20.0		S			1		2			0.079	2.0		Grosjean.
Tebessa			29.99	761.7															Colin.
Geriville			30.02	762.5	66.2	19.0		NW			2		2			0	0		Bernadach.
Laghouat			30.00	762.0	71.6	22.0	22	W			2		3			0	0		Poinsignon.
Biskra			29.99	761.8	78.3	25.7	23	NW			4		0			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.8	44.2	6.8	57	NE			4		5			0.055	1.4		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.23	767.8	36.1	2.3	74	W			2		10			0	0		I. R. Observatory.
Eperies			30.13	765.3	38.1	3.4	80	Calm			0		10			0	0		Julius Mikolik.
Gratz			30.11	764.9	39.7	4.3	61	S			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.08	764.0	42.1	5.6	56	E			1		1			0	0		Prof. Reissenberger.
Kremsmünster			29.96	760.9	39.6	4.2	74	NE			5		0			0	0		Prof. C. Wagner.
Lemberg			30.22	767.6	32.2	0.1	86	NE			2		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.17	766.2	40.6	4.8	97	NE			1		6			0	0		Habzsuda Daniel.
Pola			29.93	760.3	46.[illegible]	7.9	73	E			1		10			0.052	1.32		I. R. Hydrographic Office
Szegedin			30.10	764.6	37.0	2.8	79	S			1		6			0	0		Karl Stancel.
Trieste			29.95	760.8	46.8	8.2	49	ENE			2		10						Prof. V. Farolfi.
Vienna			30.10	764.6	39.6	4.2	74	ESE			3		3			0.035	0.9		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.74	755.4			41.7	5.4	72	SSE			3		10		E	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.35	770.9	39.5	4.2		SE	21	9.4			7			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.20	767.1	[illegible]	4.4		E			4		7						William McNeil.
Armagh Observatory			30.10	764.5	39.3	4.1		E	20	8.9			10					Snow	Stillman Cail
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.06	763.5	36.0	2.2		E E			5		10						The Liverpool Obs.
Birr Castle			30.01	762.2	38.4	3.6					1		10						J. Dreer.
Bradford			30.16	766.1	35.9	2.2		E			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.01	762.2	57.0	13.9		E			1		10					Sleet	H. Todd.
Cape Town, Cape Colony			30.0	762.0	74.8	23.8		N			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.03	762 7			66.6	18.9	48	S	17	7.6			0						The Royal Observatory.
Cardington			30.03	762.7	36.4	2.4		E					10						John McLaren.
Carlisle			30.16	766.1	38.9	3.8		E					9						T Bell.
Chatham			29.96	761.0	37.8	3.2		N			3		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.97	761.2	81.6	27.6		SW			2		8						Sgt. W. F. Hopkins
Dartmoor			29.97	761.2	31.5	— 0.3		NE			6		10						R. E. Power.
Donaghadee			30.13	765.3	38	3.3		ESE			6		10						J. Mac Gowan, Jr.
Dover			29.95	760 7	39	3.9		E			6		7						J. Costello.
Dublin																			
Durham Observatory			30.16	766.1	34.9	1.6		E					10					Rainy	G. Goldney.
Eccles, (near Manchester)			30.08	764 0	36.9	2.7		E	3.0	1.3			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.86	758.4	40.0	4.4		E E	35	15.6			10						The Falmouth Obs
Fort Napier, Natal			30.03	762.7	70.0	21.1		E			2		10						Pvt. G. Salmon.
Galway			29.93	760.2	49	9.4		E			4		10						Queen's College.
Gibraltar, (Mediterranean)			29.96	761.0	64.6	18.1		W			4		8						Sgt. J. Brewster.
Glasgow Observatory			30.21	767.5	37.2	2.9		NE			3		10						The Glasgow Obs.
Gloucester, the Asylum																			T. Toller.
Great Yarmouth			30.05	763.3	37	2.8		[illegible]			6		7			Blank	Blank		G. T. Watson.
Greenwich Royal Obs.			29.96	761.0	36.2	2.3		ENE			3		10						The Royal Observatory.
Guernsey			29 84	757.9	37.5	3.1		NE			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.08	764.0	34.7	0.4		E					10					Snow	Moorside Observatory
Halifax, (Nova Scotia)			30.10	764.8	31.8	— 0.1		SE			1		10					Mist	Corp'l J. Y. Thompson.
Helston			29.84	757 9	44	6.7		E			6		10						W. B. Moyle.
Holyhead			30.02	762.5	37	2.8					4		4						John Tilston.
Hull Park																			
Kew Observatory			29.97	761.2	36.9	2.7		E SE	24	10.7			10					Light rain	The Met. Office.
Kingstown			30.05	763.3	40	4.4		ESE			5		10					Light hail	George Mitchell
Lampeter																			
Leicester			30.04	763.0	36.2	2.3		E			3		10						William J. Harrison
Llandudno			30.04	763.0	37.3	2.9		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	69.6	20.9		SW			1		2						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.33	770.4	39	3.9		SE			2		10						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	73.5	23.1		NE			4		7						Surgeon I. Jameson
North Shields			30.21	767.3	38	3.3		ESE			6		8						John Wm. Irvine.
Nottingham			30.07	763.8	36.0	2.2		E SE			5		10		ENE			Snow	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham			30.03	762.7	34.0	1.1		ENE			4-		10					Rainy	St. Mary's College.
Oxford, Radcliffe Obs.			29.95	760.7	37	2.8		E			3		10						Radcliffe Observatory.
Plymouth			29.88	758.9	39.5	4.2		ENE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.02	760.0	41	5.0		ESE			6		10						W. Kennedy.
Saint Ann's Head			29.95	760.7	38	3.3		E			4		10						John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.41	772.4	42	5.6		SE	32	14.3			0						Rev. Dr. Clouston.
Scarboro'			30.17	766.3	36.5	2.5		E			6		10					Snowy	F. Heard.
Scutari, (Turkey)			30.15	765 8	46.8	8.2		NE			2		10						W. H. Lyne.
Sheffield			30.09	764.3	37.4	3.0		E			4		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.13	765.3	37.0	2.8		E			5		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.04	764.0	37.0	2.8		ESE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.09	764.3	35.9	2.2		E			4		10					Threatening	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.26	768.6	42	5.6		E			6		0						John Smith.
Strathfield Turgiss			29.94	760.5	37.7	3.1		E			1		9						Charles H. Griffith.
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.42	772.7	47	8.3		E			4		2						William Lawrence.
Taunton College																			
Thurso			30.4	772.1	42	5.6		SE			5		5						John Trotter.
Truro Royal Institution			30.83	757.7	42	5.6		NE			6		10						Royal Institution.
Valencia			29.88	758.9	43.3	6.3		SSE	27	12.1			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.93	760.2	38.0	3.3		E			4		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.37	771.4	31.6	— 0.2	94	E			2		8				
Faröe			30.36	771.1	33.1	0.6	85	ESE			4		10				
Godthaab, (Greenland)			29.97	761.2	— 3.1	—19.5		NE			6		5				
Stykkisholm, (Iceland)			29.79	756.6	41.0	5.0	97	S			9		8				Rain
Thorshavn, (Faröe)			30.41	772.6	43.7	6.5	71	SSE			4		4				
Vestervig			30.36	771.2	39.7	4.3	82	E			2		0				

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.73	755.2	57.2	14.0	98						10					Rain	Normal School.
Alençon			29.80	756.9	45.3	7.4	58	NE			2		2			0	0		Normal School.
Amiens			29.82	757.3	44.6	7.0	91	E			4		0			0	0		Normal School.
Beaumette, (near Angers)			29.74	755.4	41.4	5.2	71	E	5.8	2.6			10		E	0	0		Beaumette Observatory.
Beauvais			29.85	758.2	43.3	6.3	51	ESE			3		2		ESE	0	0		Normal School.
Besançon			29.85	758.2	42.4	5.8	88	E			3		8		S	0.067	1.7		Normal School.
Bourges			29.77	756.1	48.2	9.0		N			2		10		N	0	0		Normal School.
Brest			29.71	754.6	43.7	6.5	67	ENE			2		5			0	0		Naval Observatory.
Caen			29.88	759.0	48.2	9.0	60	E			2		2		E	0	0		Normal School.
Carcassonne																			
Chartres			29.74	755.3	44.8	7.1		E			2		10			0	0		Normal School.
Chaumont			29.83	757.6	38.7	3.7		ESE			2		10		ESE	0	0		Normal School.
Le Mans			29.79	756.7	41.9	5.5	77	E			4		8		SSE	0	0		Normal School.
Mirecourt			29.78	756.4	44.8	7.1		NE			2		10		E	0	0		Normal School.
Orleans			29.79	756.7	39.6	4.2	65	ENE			2		8		NE	0	0		Normal School.
Paris			29.79	756.6	46.2	7.9		E			3		0			0	0		National Observatory.
Parthenay			29.72	754.9	52.2	11.2	79	NE			2		10			0	0		
La Roche sur Yon			29.76	755.8	43.9	6.6	85	NE			2		5		E	0	0		Normal School.
Rouen			29.85	758.2	44.6	7.0	51	NE			4		2		N	0	0		Normal School.
Saint Lo			29.81	757.2	43.7	6.5	58	E			6		2		E	0	0		Normal School.
Villefranche			29.70	754.4	53.8	12.1	98	SE			4		0			0.606	15.4		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.87	758.8	73.0	22.8	73	N			1		3			0	0		Père Pascall.
Mont-Louis	24.65	626.1			45.9	7.7	81	E	15.0	6.7			5		SW	0.236	6.0		—. Falguère.
Montsouris (near Paris)			29.79	756.6	46.6	8.1	54	E	6.9	3.1			5			0	0		Marié Davy.
Perpignan	29.70	754.3			64.4	18.0	37	NW	9.4	4.2			8		W	0.098	2.5		Dr. Fines.
Saint Maur, (near Paris)			29.79	756.6	47.1	8.4		E			2		2			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.79	755.7	41.5	5.3	70	ESE			2		10		E	0	0		C. Marquet.
Versailles, (near Paris)			29.79	756.6	46.4	8.	48	E			4		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.06	763.5	41.0	5.0	61	E			4		6			0	0		Prof. Hoh.
Berlin			30.31	769.9	34.7	1.5	77	SE			1		10			0	0		Prof. Arndt.
Breslau			30.21	767.4	37.8	3.2	77	ESE			3		10			0	0		Dr. P. Neugebauer.
Carlsruhe			29.95	760.8	40.6	4.8	62	E			2.5		10			0	0		A. Senz.
Cassel			30.10	764.5	37.5	3.1	64	E			2		10			0	0		Dr. H. Möhl.
Cologne			30.06	763.4	42.8	6.0	76	SE			2		4			0	0		Dr. Garthe.
Emden			30.31	769.8	36.7	2.6	78	E			2		10			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.2	41.9	5.5	56	E			4		9			0	0		Physical Society.
Friedrichshafen			29.97	761.1	35.6	2.0	82	E					10			0.020	0.5	Snow & rain.	M. Wilhelm.
Hamburg			30.30	769.6	37.4	3.0	70	E			4		9			0	0		W. Reinert.
Kiel			30.35	770.8	36.7	2.6	77	E			4		10			0	0		Prof. G. Karsten.
Königsberg			30.34	770.6	29.3	-1.5	71	NE			2		2			0	0		Prof. E. Luther.
Köslin			30.58	776.8	34.2	1.2		E			2		8			0	0		Dr. T gert.
Leipsic			30.20	767.0	35.1	1.7	88	ENE			4		9			0	0		Prof. Bruhns.
Münster			30.11	764.8	40.3	4.6	74	NE			5		10			0	0		Prof. E. Heis.
Posen			30.35	771.0	36.3	2.4	82	NE			3-4		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.92	759.9	43.2	6.2	55	E					9			0.197	5.0		Hartwig and Tülk.
Stuttgart			29.98	761.4	39.2	4.0	57	E					9			0	0		Mr. Würth.
Thorn			30.30	769.7	36.7	2.6	81	E			3		5			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.91	759.6	41.9	5.5	54	E			8		8			0	0		Prof. [illegible]lesch.
Wustrow			30.35	771.0	33.3	0.7	88	ENE			5		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.99	761.7	41.5	5.0	89	ESE			2		10			0	0		
Mondovi			30.04	762.9	36.9	2.7	89	WNW			2		10			0	0	Sleet	
Genoa			29.88	758.9	46.2	7.9	66	N	15.0	6.7			10		N	0.008	0.2		
Pavia			30.00	761.9	43.2	6.2	57	ENE			2		10			0	0		
Verona			29.94	760.6	47.1	8.4	61	E			2		10			0	0		
Padua			29.95	760.7	46.6	8.1	55	NE	12.5	5.6			10			0	0		
Parma																			
Bologna			30.02	762.5	39.4	4.1	61	SW			2		10			0.188	3.0		
Livorno			29.85	758.2	48.6	9.2	95	ENE	19.8	4.4			10			0.264	6.7		
Urbino			29.98	761.5	43.2	6.2	100	NE			2		10			0.772	19.6		
Ancona			30.00	761.9	43.9	6.6	91	NW			2		10			0.504	12.8		
Siena			29.85	758.3	47.1	8.4	99	E	0	0			10			0.165	4.2		
Rome			29.85	758.1	59.4	15.2	72	S	15.4	6.9			9	SSE		0.007	1.7		
Naples, O.U.			29.91	759.8	61.0	16.1	73	SW			2		8	W			0		
Lecce			29.93	760.2	58.1	14.5	69	ESE	19.2	8.6			8			0	0		
Cosenza			29.89	759.1	47.8	8.8	50	SSE			1		2	WNW		0	0		
Catania, (Sicily)			29.93	760.3	63.0	17.2	45	SE			2		0			0	0		
Riposto																			
Palermo																			
Naples, S. R.—(Sub-Series)			29.86	758.5	62.6	17.0	61	NE			2		0			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.06	762.0	40.3	4.6		E			5								
Groningen			30.14	765.6	36.5	2.5		E			6								
Helder			30.12	765.0	36.5	2.5		ENE			5								
Utrecht			30.02	762.5	39.2	4.0		ENE			5		10						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.48	774.3	43.9	6.6	4	Calm	0	0			0			0	0		
Christiania			30.45	773.5	35.2	1.8	87	SW	0.7	0.3			8			0	0		
Tromsö					40.3	4.6	92									0.346	8.8		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.65	753.1			56.8	13.8	60	W	15.0	6.7			7						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.27	768.9	37.2	2.9	78	NE	4	2			1						Astronomical Obs.
Wilna			30.28	769.0	26.8	—2.9	83	W	4	2			10						Astronomical Obs.
Dorpat			30.13	765.3	34.3	1.3	76	NNW	9	4			6						Physical Cabinet.
St. Petersburg			30.04	762.9	38.7	3.7	57	NNE	13	6			0						Central Physical Obs.
Kieff			30.26	768.7	26.4	—3.1	76	SSE	7	3			5						Physical Cabinet.
Nikolaiev			30.33	770.4	27.7	—2.4	71	NE	4	2			0						
Kertch			30.23	767.7	33.3	0.7	78	NE	10.1	4.5									Lagorio.
Moscow			29.80	756.8	23.9	—4.5	93	W	10.1	4.5			10			Blank	Blank	Snow	Meteorological Obs.
Lugan			30.23	767.7	18.0	—7.3	78	SW	10.1	4.5			5						Meteorological Obs.
Archangel			30.30	769.7	7.9	—13.4	76	NNE	16.8	7.5			0						Ogorodnikof.
Tiflis			30.33	770.3	33.8	1.0	82	E	7.8	3.5			10			Blank	Blank	Snow	Physical Obs.
Astrakhan			30.30	769.6	30.2	—1.0	39	NW	4	2			5						Sebastianof.
Kasan			29.72	754.9	14.5	—9.7	87	W	2	1			10			Blank	Blank	Snow	Physical Cabinet.
Orenburg			30.00	762.0	7.5	—13.6	92	E	4	2			0						Tschernischef.
Ekaterinburg			30.03	762.7	14.0	—10.0	74		4	2			7						Meteorological Obs.
Kasaly			30.13	765.3	17.4	—8.1	71	W	13	6			0						Bobrof.
Tashkend			30.46	773.7	34.5	1.4	80	NW	7.8	3.5			10						Michelson.
Barnaul			30.30	769.6	7.3	—13.7	79	SW	4	2			4						Meteorological Obs.
Yeniseisk			29.88	759.0	7.3	—13.7	69	E	7.8	3.5			1						arks.
Irkutsk																			Usolzef.
Oorga			29.70	755.8	29.5	—1.4	100	Calm	0	0			5						Mossin.
Peking, (China)			29.91	759.8	37.0	2.8	94	Calm	0	0			10						Physical Observatory
Nertchinsk			29.83	757.6	23.0	—5.0	93	Calm	0	0			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.87	758.7	57.6	14.2	67	SW	9.4	4.2			8			0.031	0.8		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.30	769.7	47.8	8.8	58	N			2		7			0	0		
Hernosand			30.34	770.7	48.6	9.2	86	N			4		8			0	0		
Stockholm			30.29	769.3	40.6	4.8	53	NNE			2		9			0	0		
Wisby			30.33	770.4	34.5	1.4	78	NNE			2		5			0	0		
Upsala—(Sub-Series)			30.32	770.3	40.6	4.8	49	N			4		9	NE					Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a.m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.46	722.8			28.8	— 1.8	93	NNW			2		10			Blank	Blank	Rain	The Observatory.
Zurich	28.24	717.4			34.2	1.8	92	NE			1		9			0.024	0.6		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.0mm.; Thermometer, —5°.4 C.; Relative Humidity, +31 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.09	764.2	65.0	18.3	73	SW			1		5			Blank	Blank	Rain	
Constantinople			30.16	766.0	44.0	6.8	74	NNE	7.8	3.5			10		WSW	0.071	1.8		
Fao, (Persian Gulf)			30.22	767.5	64.4	18.0		NW			3		5						
Salonica			30.03	762.8	55.8	13.2		NW			2		10						
Valona			29.88	759.0	65.5	18.6		SW			1		2						
Varna			30.20	767.0	42.8	6.0		E			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			29.80	756.9	35	1.7		SW	9	4			10		SW	0.03	0.8		
Cape Roziere, Quebec			30.00	762.0	24	— 4.4	93	SW	15	6.7		8	8	SW	S	0	0		
Chatham, N. B.			30.00	762.0	22	— 5.6	86	Calm	0	0			8			0.02	0.5		
Charlottetown, P. E. Island			30.11	764.8	24	— 4.4	96	S	3	1.3			10			0.250	6.35		
Father Point, Quebec			29.82	757.4	10	—12.2	79	SW	14	6.2			Haze			0.01	0.3	Light snow.	
Fort Garry, Manitoba			29.64	752.8	12	—11.1	84	SE	13	5.8			5			0	0		
Halifax, N. S.			30.05	763.3	30	— 1.1	88	S	4	1.8			10			0.20	5.1		
Kingston, Ontario			29.86	758.4	36	2.2	85	W	5	2.2			10		W	0	0		
Montreal, Quebec			29.68	753.9	33	0.6	88	SW	18	8.0			10			0.12	3.0	Heavy snow	
Ottawa, Ontario			29.69	754.1	30	— 1.1	62	W	2	0.9		10	0	W		0.05	1.3		
Parry Sound, Ontario			29.87	758.7	24	— 4.4	94	NW	11	4.9		5	5	W	W	0.54	13.7		
Port Dover, Ontario			29.97	761.2	31	— 0.6	79	NW	7	3.1		10	0	NW		0.14	3.6		
Port Stanley, Ontario			29.98	761.5	31	— 0.6	80	W	12	5.4			10		W	0.18	4.3		
Quebec, Quebec			29.74	755.4	27	— 2.8	100	E	1	0.4			10			0.05	1.3	Light snow.	
Saugeen, Ontario			29.92	760.0	26	— 3.3	94	NW	12	5.4			10		N	0.18	4.3		
Stayner			29.91	759.7	28	— 2.2	83	W	10	4.5			10		W ?	0.28	7.1	Threatening	
Sydney, C. B.			30.14	765.5	16	— 8.9	86	W	1	0.4		2	2	W		0	0		
Toronto, Ontario			29.96	761.0	31	— 0.6	90	W	13	5.8			10		W	0.08	2.3		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.86	758.4	39	3.9	81	S	15	6.7		5	0	W.		0	0		
Alpena, Mich.			30.05	763.3	—21	—29.4		W	4	1.8		0	Haze			0.06	1.5		
Atlantic City, N. J.			30.02	762.5	39	3.9	81	S	9	4.2		0	Haze			0	0		
Augusta, Ga.			30.13	765.3	54	12.2	80	S	2	0.9			10		S	0.02	0.5	Light rain	
Baltimore, Md.			29.99	761.7	41	5.0	74	Calm	0	0		0	Fog			0	0	Fog.	
Barnegat, N. J.			30.04	763.0	42	5.6	83	S	4	1.8		2	Haze			0	0		
Benton, Montana			29.4	746.7	29	— 1.7	89	Calm	0	0			10			0	0		
Bismarck, Dakota			29.47	748.5	11	—11.7	60	NE	2	0.9		5	0			0.15	3.8		
Boston, Mass.			29.89	759.2	41	5.0	74	SW	9	4.0		0	0			0	0		
Breckenridge, Minn.			29.69	754.1	16	— 8.9	90	SE	20	8.9			10			0	0		
Buffalo, N. Y.			29.94	760.5	33	0.6	89	W	16	7.2			10		N.	0.07	1.8	Light rain	
Burlington, Vt.			29.76	755.9	38	3.3	72	S	16	7.2			10			0	0		
Cairo, Ill.			30.04	763.0	38	3.3	71	E	4	1.8			10			0	0		
Cape Hatteras, N. C.			30.16	766.1	54	12.2	86	SW	6	2.7			10			0	0		
Cape Henry, Va.			30.11	764.8	55	12.8	56	S	8	3.6			10			0	0		
Cape May, N. J.			30.03	762.7	43	6.1	75	S	12	5.4		0	Haze			0	0		
Charleston, S. C.			30.19	766.8	58	14.4	87	SW	8	3.6			10		SW	0	0		
Cheyenne, W. T.			29.58	751.3	24	— 4.4	60	W	2	0.9		0	2			0	0		
Chicago, Ill.			29.75	755.6	35	1.7	70	Calm	0	0		5	Fog	W		0.05	1.3		
Cincinnati, Ohio			30.05	763.3	38	3.3	71	NW	2	0.9			Sm'e			0	0		
Cleveland, Ohio			29.98	761.5	33	0.6	85	W	8	3.6			10		W	0.06	1.5		
Colorado Springs, Col.			29.63	752.6	23	— 5.0	73	SW	3	1.3		0	0			0	0		
Corsicana, Texas			29.87	758.7	50	10.0	71	NW	2	0.9		5	5		W	0.02	0.5		
Davenport, Iowa			30.00	762.0	29	— 1.7	89	Calm	0	0		5	Sm'e	W		0	0		
Denver, Col.			29.70	754.9	27	— 2.8	64	S	8	3.6		0	0			0	0		
Detroit, Mich.			29.99	761.7	32	0.0	84	W	9	4.0			10			0.05	1.3		
Dodge City, Kansas			29.45	748.2	36	2.2	80	W	6	2.7		0	0			0	0		
Dubuque, Iowa			30.00	762.0	22	— 5.6	72	W	2	0.9		5	Fog			0.03	0.8		
Duluth, Minn.			29.98	761.5	13	—10.6	81	NE	24	10.7			10			0	0		
Eastport, Me.			30.01	762.2	34	1.1	90	S	12	5.4		10	0	S		0.06	1.5		
Erie, Penn.			29.97	761.2	35	1.7	80	SW	24	10.7			10			0.03	0.8		
Escanaba, Mich.			30.07	763.8	4	—15.6	74	N	5	2.2		0	0			0.02	0.5		
Fort Gibson, I. T.			29.81	757.2	41	5.0	63	E	4	1.8		5	Fog	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.58	751.3	18	— 7.8	76	Calm	0	0		0	5			0	0		
Galveston, Texas			29.92	760.0	65	18.3	94	SE	8	3.6			Fog			0.51	13.0	Fog	
Grand Haven, Mich.			30.04	763.0	22	— 5.6	72	NE	2	0.9		0	Fog			Blank	Blank		
Indianapolis, Ind.			30.04	763.0	36	2.2	70	Calm	0	0		10	Fog	W		0.01	0.3		
Indianola, Texas			29.90	759.5	66	18.9	94	SW	16	7.2			10		SW	0	0		
Jacksonville, Fla.			30.14	765.5	63	12.2	78	SE	4	1.8			10			0	0		
Keokuk, Iowa			29.94	760.5	33	0.6	69	SE	8	3.6		5	5	SE		0	0		
Key West, Fla.			30.15	765.8	76	24.4	76	SE	12	5.4		Haze	Sm'e			0	0		
Kittyhawk, N. C.			30.15	765.8	54	12.2	76	W					10		W	0	0		
Knoxville, Tenn.			30.05	763.3	46	7.8	92	E	6	2.7			10			0.02	0.5		
La Crosse, Wis.			29.96	761.0	17	— 8.3	67	S	5	2.2		2	0	S		0.05	1.3		
Leavenworth, Kan.			29.86	758.4	33	0.6	74	SE	2	0.9		0	0			0	0		
Lexington, Ky.			30.06	763.5	44	6.7	51	W	7	3.1			10			0	0		
Long Branch, N. J.			29.99	761.7	47	8.3	85	SW	4	1.8		2	0	NW		0	0		
Louisville, Ky.			30.04	763.0	38	3.3	72	Calm	0	0			10			0.05	1.3		
Lynchburg, Va.			30.05	763.3	48	8.9	56	SW	2	0.9		10	Haze	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.09	764.3	8	—13.3	78	NW	4	1.8			5			0.05	1.3		
Memphis, Tenn.			29.99	761.7	52	11.1	86	Calm	0	0			10			Blank	Blank		
Milwaukee, Wisconsin			30.05	763.3	25	— 3.9	77	NW	2	.9			Fog			0.16	4.1	Fog	
Mobile, Ala.			30.02	762.5	59	15.0	100	NE	4	1.8			10			2.53	64.3		
Montgomery, Ala.			30.01	762.2	56	13.3	90	SE	12	5.4			10		SE	0.48	12.2	Light rain	
Morgantown, W. Virginia			30.03	762.7	43	6.1	79	N	6	2.7			10			0.03	0.8		
Mt. Washington, N. H.			29.95	760.7	18	— 7.8	100	W	60	26.8			Fog			0	0		
Nashville, Tenn.			30.00	762.0	51	10.6	86	Calm	0	0			10			0	0		
New Haven, Conn.			29.96	761.0	44	6.7	76	SW	12	5.4		2	0	W		0.01	0.3		
New London, Conn.			29.96	761.0	42	5.6	74	SW	8	3.6		0	Haze			0.01	0.3		
New Orleans, La.			29.98	761.5	60	15.6	91	SE	7	3.1		2	8		SW	2.75	69.9		
Newport, R. I.																			
New York, N. Y.			30.00	762.0	40	4.4	81	SW	8	3.6		2	0	W		0	0		
Norfolk, Va.			30.11	764.8	54	12.2	65	SW	8	3.6			10			0	0		
North Platte, Neb.			29.32	744.7	31	— 0.6	79	S	4	1.8		0	0			0	0		
Omaha, Neb.			29.78	756.4	32	0.0	79	SE	15	6.7			10		S	0	0		
Oswego, N. Y.			29.87	758.7	37	2.8	80	W	16	7.2			10		W	0.02	0.5		
Peck's Beach			30.03	762.7	39	3.9	100	SW	12	5.4			10			0	0		
Pembina, D. T.			29.57	751.1	19	— 7.2	84	SE	28	12.5			10			0	0		
Philadelphia, Penn.			30.01	762.2	41	5.0	73	W	8	3.6		0	0			0	0		
Pike's Peak, C. T.			29.44	747.8	—10	—23.3	100	NW	50	22.4			Fog			0	0	Fog	
Pittsburgh, Penn.			30.01	762.2	39	3.9	72	SW	5	2.2		0	0			0	0		
Port Huron, Mich.			29.99	761.7	30	— 1.1	78	NW	2	0.9			10			0.17	4.3		
Portland, Maine			29.90	759.5	37	2.8	80	S	13	5.8			10		S	0.11	2.8	Heavy snow	
Portland, Or.			30.08	764.0	43	6.1	83	SW	4	1.8			10			0	0		
Punta Rassa, Fla.			30.17	766.3	69	20.6	90	SE	12	5.4		Haze	0			0	0		
Rochester, N. Y.			29.88	758.9	36	2.2	80	W	10	7.2			10			0.01	0.3		
Salt Lake City, Utah			29.82	757.4	33	0.6	69	SE	3	1.3			10			0.29	7.4		
Sandy Hook, N. J.			30.01	762.2	44	6.7	80	SW	6	2.7		5	Sm'e	W		0	0		
San Diego, Cal.			30.00	762.0	52	11.1	86	Calm	0	0			10			0	0		
San Francisco, Cal.			30.01	762.2	49	9.4	85	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.59	751.6	28	— 2.2	54	N	8	3.6		0	2			0	0		
Savannah, Georgia			30.15	765.8	59	15.0	81	SW	3	1.3			10			0	0		
Shreveport, La.			29.91	759.7	51	10.6	100	E	4	1.8			10			0.01	0.3	Light rain	
Springfield, Mass.			29.89	759.2	38	3.3	71	SW	8	3.6		5	Haze	W		0.03	0.8		
St. Louis, Mo.			30.02	762.5	34	1.1	79	Calm	0	0		0	0			0	0		
St. Marks, Fla.			30.06	763.5	55	12.8	93	NE	6	2.7			10			0.10	2.5	Light rain	
St. Paul, Minn.			29.83	757.7	17	— 8.3	75	SE	12	5.4			10		W	0.03	0.8		
St. Paul's Island, Alaska			30.45	773.4	31	— 0.6	78	NE	1	0.4		1	2	SW		0.03	0.8		
Squan Beach, N. J.			29.98	761.5	42	5.6	65	SW	6	2.7		0	Sm'e			0	0		
Toledo, Ohio			29.96	761.0	35	1.7	60	W	8	3.6			10		W	0.13	3.3		
Tybee Island, Ga.			30.16	766.1	58	14.4	93	Calm	0	0			10		SW	0.04	1.0	Light rain	
Vicksburg, Miss.			30.02	762.2	57	13.9	93	S	1	0.4			Fog			0.40	10.2	Fog	
Virginia City, Mon.			29.20	741.7	24	— 4.4	87	SW	20	8.9			10			0	0		
Washington, D. C.			30.01	762.2	46	7.8	67	SW	8	3.6		Haze	Sm'e			0	0		
Wilmington, N. C.			30.14	765.5	59	15.0	76	S	10	4.5			10			0	0	Threatening	
Wood's Hole, Mass.			29.95	760.7	39	3.9	81	S	28	12.5		0	5		S	0	0		
Wytheville, Va.			29.89	759.2	40	4.4	91	W	1	0.4			10			0	0		
Yankton, D. T.			29.67	753.6	34	1.1	80	S	20	8.9			10		S	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.17	766.3	81	27.2		NE	5	2.2		5	5	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.10	764.5	75	23.9		E				8	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.92	760.0	76	24.4	76	SE	6	2.7		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768.8	76	24.4	94	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.93	760.2	73	22.8	76	NE	2	0.9		0	2		ENE	0	0		Robert Mason.
St. Georges, Bermudas			30.35	770.9	61	16.1	66	NW	9	4.0		2	1	WNW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.07	763.8	66	18.9		Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	62	16.7	88	Calm	0	0		0	1		N	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.86	758.4	—17	—27.2	68	S	9	4.0		4	0	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.09	764.3	67	19.4		NE	3	1.3			5			0	0		C. Partridge.
St. Johns, Newfoundland			29.99	761.7	18	— 7.8	84	NE				5	10			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.22	767.6	73.6	23.1	82	E			2	2	5	W		Blank	Blank	Light rain	Leon M. Acuña.
Ellyria, Ohio	29.18	741.2			32	— 0.0	89	NW	4	1.8		0	10			0.12	3.0		H. M. Redington.
Indianola, Iowa	29.08	738.6			30	— 1.1		SE				1	1	SW		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 13, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:40 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.72	755.0									7			0.039	1.0		Charnot.
Algiers			29.76	755.8	64.4	18.0	55	W			2								Peter.
La Calle			29.84	757.8															Kuntz.
Tunis			29.87	758.6	72.7	22.6	42	SW			3		10			0	0		Jacques.
Sfax			29.80	759.3															Chauvey.
Salda			29.74	755.5	48.4	9.1		WNW			4		6			0.158	4.0	Raining	Grosjean.
Tebessa			29.88	759.0															Colin.
Geriville			29.80	756.8	62.5	17.5		WNW			4		1			0	0		Bernadach.
Laghouat			29.93	760.1	70.7	21.5	25	NW			2		3			0	0		Poinsignon.
Biskra			29.89	759.3	70.7	21.5	22	SE			5		10			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.13	765.2	38.3	3.5	75	Calm			0		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.19	766.8	36.7	2.6	68	NE			1		2			0	0		I. R. Observatory.
Eperies			30.10	764.5	37.4	3.0	69	Calm			0		3			0	0		Julius Mikolik.
Gratz			30.13	765.4	39.9	4.4	78	SSW			2.5		10			0.150	3.8		Andreas Rospini.
Hermannstadt			30.09	761.8	40.3	4.6	66	E			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.06	763.6	41.0	5.0	78	E			5		0			0	0		Prof. C. Wagner.
Lemberg			30.08	763.9	28.6	— 1.9	87	N			5		7			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.09	764.2	38.8	3.8	87	N			3		0			0	0		Habsuda Daniel.
Pola			29.99	761.8	49.6	9.8	48	NE			2		9			0.031	0.77		I. R. Hydrographic Office
Szegedin			30.08	763.9	34.9	1.6	82	NE			1		4			0	0		Karl Stancel.
Trieste			30.01	762.2	45.1	7.3	51	ENE			4		0						Prof. V. Farolfi.
Vienna			30.15	765.7	42.1	5.6	68	NE			1		6			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.74	755.4			47.1	8.4	53	SSE			1		3			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.29	769.4				SE	20	8.9			9			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.18	766.6	39	3.9		ENE			3		8						William McNeil.
Armagh Observatory			30.12	765.0	37.0	2.8		ENE	11	4.9			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.05	763.3	38.5	3.6		ENE			3		10						The Liverpool Obs.
Birr Castle			30.05	763.3	38.0	3.3		E			1		10					Rainy	J. Dreyer.
Bradford			30.06	763.5	37.1	2.8		E			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.01	762.2	41.5	5.3		E			2		10						H. Todd.
Cape Town, Cape Colony			29.86	758.4	73	22.8		NW			1		2						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.89	759.2			67.1	19.5	52	S E	26	11.6			1						The Royal Observatory.
Cardington			30.02	762.5	41.0	5.0		E					10						John McLaren.
Carlisle			30.15	765.8	37.9	3.3		NE					10			0	0		T. Bell.
Chatham			29.92	760.0	39.1	3.9		NE			3		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759.4	82.5	28.1		SW			2		7						Sgt. W. F. Hopkins
Dartmoor			30.00	762.0	37.5	3.1		SE			2		5						R. E. Power.
Donaghadee			30.12	765.0	37	2.8		ESE			5		10						J. Mac Gowan, Jr.
Dover			29.94	760.5	40	4.4		E E			4		6						J. Costello.
Dublin																			
Durham Observatory			30.16	766.1	36.2	2.3							10						G. Goldney.
Eccles, (near Manchester)			30.07	763.8	38.7	3.7		ENE	3.8	1.7			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.90	759.4	42.2	5.7		E	24	10.7			10						The Falmouth Obs.
Fort Napier, (Natal)			29.88	758.9	80.4	26.9		NE			4		6						Pvt. G. Salmon.
Galway			29.95	760.7	50	10.0		E			2		7						Queen's College.
Gibraltar, (Mediterranean)			29.95	760.7	58.8	14.9		W			3		8					Rainy	Sgt. J. Brewster.
Glasgow Observatory			30.28	769.1	37.0	2.8		NE			3		10					Threatening	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.04	763.0	38	3.3		E			6		7						G. T. Watson.
Greenwich Royal Obs.			29.97	761.2	38.3	3.5		ENE			3		10						The Royal Observatory.
Guernsey			29.86	758.4	44	6.7		NE			4		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.06	763.5	36.4	2.4		E					10					Threatening	Moorside Observatory.
Halifax, (Nova Scotia)			29.80	759.	33.6	0.9		NE			2		1						Corp'l J. Y. Thompson.
Helston			29.86	758.4	45	7.2		NE			4		10						W. B. Moyle.
Holyhead			30.04	763.0	39	3.9		E			4		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.97	761.2	39.3	4.1		ENE	21	9.4			10						The Met. Office.
Kingstown			30.06	763.5	41	5.0		E			3		10						George Mitchell.
Lampeter																			
Leicester			30.03	762.7	38.7	3.7		E			2		10						William J. Harrison
Llandudno			30.06	763.5	37.4	3.0		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.98	761.5	61.0	16.1		NW			1		1						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn																			
Nassau, (Bahamas)			30.20	767.1	74.8	23.8		SE			2		3						William D. Penny.
North Shields			30.19	766.8	38	3.3		ESE			5		9						Surgeon I. Jameson.
Nottingham			30.07	763.8	38.0	3.3		ENE			3		10		ENE				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, (Birmingham)			30.01	762.2	37.2	2.9		ENE			4		10					Mist	J. R. Mann.
Oxford, Radcliffe Obs.			29.96	761.0	40	4.4		E			3		10						St. Mary's College.
Plymouth			29.90	759.4	44.5	6.9		ENE			4		3						Radcliffe Observatory.
Portishead																			John Merrifield.
Prospect, (Bermuda)																			
Roche's Point			29.96	761.1	39	3.9		NE			4		10						W. Kennedy.
Saint Ann's Head			29.98	761.5	40	4.4		E			2		10					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.33	770.4	42.8	6.0		S	16	7.2			5						Rev. Dr. Clouston.
Scarboro'			30.16	766.1	37.0	2.8		ESE			5		10						F. Heard.
Scutari, (Turkey)			29.98	761.5	42.0	5.6		ENE			1		10						W. H. Lyne.
Sheffield			30.09	764.3	38.6	3.7		E			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.13	765.3	38.1	3.4		ENE			4		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.03	762.7	39.4	4.1		ENE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.09	764.3	37.4	3.0		E			3		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.22	767.6	42	5.6		SE			2		5						John Smith.
Strathfield Turgiss			29.95	760.7	40.4	4.7		E			1-2		10						Charles H. Griffith.
Streatley Vicarage			29.97	761.2	42.1	5.6		ENE			4		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.36	771.1	45	7.2		ESE			4		8						William Lawrence.
Taunton College																			
Thurso			30.30	769.6	42	5.6		SE			3		6						John Trotter.
Truro Royal Institution			29.83	757.7	46	7.8		E			6		10						Royal Institution.
Valencia			29.97	761.2	44.8	6.0		E	8	3.6			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			29.92	760.0	44.7	7.1		NE			4		10						S. H. Miller.
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.39	771.9	37.6	3.1	79	SE			2		1						
Fanöe			30.35	771.0	40.3	4.6	74	ESE			4		1						
Godthaab, (Greenland)			30.02	762.5	12.0	—11.1					6		10						
Stykkisholm, (Iceland)			30.09	764.2	40.3	4.6	81	SE			4		2						
Thorshavn, (Faröe)			30.32	770.2	45.1	7.3	69	NE			2		1						
Vestervig			30.36	771.1	42.8	6.0	70	ESE			4		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.80	757.0	56.3	13.5	95						8						Normal School.
Alençon			29.84	758.0	45.3	7.4	85	NE			1		10						Normal School.
Amiens			29.81	757.1	45.3	7.4	81	E			4		10			0	0		Normal School.
Beaumette, (near Angers)			29.78	756.3	52.0	11.1	72	NE	6.0	2.7			10		NE	0	0		Beaumette Observatory.
Beauvais			29.88	759.0	48.7	9.3	73	SE			1		8		SE	0	0		Normal School.
Besançon			29.88	758.9	54.1	12.3	72	NE			3		8		NNE	0.177	4.5		Normal School.
Bourges			29.83	757.6	51.1	10.6		S			2		8		S	0.118	3.0		Normal School.
Brest			29.76	755.9	47.7	8.7	67	NE			3		10		NE	0	0		Naval Observatory.
Caen			29.84	757.9	46.4	8.1	77	NE			2		10		NE	0	0		Normal School
Carcassonne																			
Chartres			29.84	757.8	44.6	7.0		ENE			0		10			0	0		Normal School.
Chaumont			29.85	758.3	50.2	10.1		E			2		10		E	0	0		Normal School.
Le Mans			29.83	757.7	45.3	7.4	80	E			2		8		E	0	0		Normal School.
Mirecourt			29.85	758.1	45.1	7.3		NNE			2		10		S	0.433	11.0		Normal School.
Orleans			29.85	758.2	52.2	11.2	75	ENE			2		8		SE	0	0		Normal School.
Paris			29.84	758.0	51.6	10.9		SSE			2		8		SSE	0	0		National Observatory.
Parthenay			29.71	754.7	55.4	13.0	95	NE			2		5		W	0.020	0.5		
La Roche sur Yon			29.77	756.2	54.0	12.2	78	NE			1		5		SW	0.008	0.2		Normal School.
Rouen			29.87	758.7	42.8	6.0	81	NE			3		10			0	0		Normal School.
Saint Lo			29.86	758.4	47.1	8.4	76	E			6		10		E	0	0		Normal School.
Villefranche			29.84	757.8	59.2	15.1	84	SE			4		0			0.110	2.8		Normal School.
FRENCH SUB-SERIES.																			
Gorée, (Senegambia)			29.85	758.3	75.6	24.2	72	W			1		3			0	0		Père Pascall.
Mont-Louis	24.46	621.4			39.2	4.0	84	NE	11.2	5.0			10		SSE	0.035	0.9		—, Falguère.
Montsouris (near Paris)			29.84	758.0	54.1	12.3	65	SE	0.9	0.4			8		S	0	0		Marié Davy.
Perpignan	29.58	751.4			54.5	12.5	86	SE	16.8	7.5			10		SE	0.087	2.2	Rainy	Dr. Fines.
Saint Maur, (near Paris)			29.84	758.0	55.8	13.2	60	SE			1		9			0.004	0.1		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.70	756.7	51.8	11.0	75	E			1		5		E	0.004	0.1		C. Marquet.
Versailles, (near Paris)			29.85	758.2	48.9	9.4	81	SE			1		9			0.004	0.1		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.05	763.3	43.2	6.2	63	E			2		3			0	0		Prof. Hoh.
Berlin			30.35	771.0	34.0	1.1	75	E			1		10			0	0		Prof. Arndt.
Breslau			30.30	769.5	31.1	—0.5	97	N			3		10			0	0	Fog.	Dr. P. Neugebauer.
Carlsruhe			29.96	761.0	49.0	9.8	57	E			3		1			0	0		A. Senz.
Cassel			30.13	765.2	45.5	7.5	54	ESE			2		0			0	0		Dr. H. Möhl.
Cologne			30.03	762.7	45.3	7.4	66	SE			3		2			0	0		Dr. Garthe.
Emden			30.33	770.3	37.6	3.1	75	E			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.15	765.0	47.7	8.7	46	E			3		2			0	0		Physical Society.
Friedrichshafen			29.96	760.9	46.4	8.0	86	NE					2			0.090	2.3		M. Wilhelm.
Hamburg			30.32	770.1	39.2	4.0	71	E			4		5			0	0		W. Reinert.
Kiel			30.37	771.4	37.9	3.3	75	ENE			3		3			0	0		Prof. G. Karsten.
Königsberg			30.32	770.0	34.7	1.5	71	NE			2		4			0	0		Prof. E. Luther.
Köslin			30.50	776.9	36.5	2.5		NE			2		10			0	0		Dr. T gert.
Leipsic			30.26	768.6	38.5	3.6	77	ENE			3		7			0	0		Prof. Bruhns.
Münster			30.09	764.2	45.0	7.2	56	NE			3		0			0	0		Prof. E. Heis.
Posen			30.37	771.5	32.0	0.0	85	N			5		10			0	0		Dr. Mager er.
Strassburg, (in Alsace)			29.95	760.6	48.7	9.3	65	NNE					8			0.004	0.1		Hartwig and Tülk.
Stuttgart			30.03	762.8	49.6	9.8	45	SE					4			0	0		Mr. Würth.
Thorn			30.28	769.1	33.8	1.0	81	N			4		10			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.91	759.8	48.4	9.1	54	NE			7		2			0	0		Prof. Flesch.
Wustrow			30.39	771.9	35.6	2.0	87	NE			1		10			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.05	763.2	41.2	5.1	78	NNE			1		1			0	0		
Mondovi			30.04	762.9	41.2	5.1	64	NW			2		10			0	0		
Genoa			29.95	760.6	48.6	9.2	58	NE	10.5	4.7			10	W		0	0		
Savia			30.01	762.3	45.6	7.6	69	E			1		10			0	0		
Verona			29.99	761.7	49.0	9.8	54	E			2		3			0	0		
Padua			30.00	762.0	49.8	9.9	49	NE	6.3	2.8			7	NE		0	0		
Parma																			
Bologna			30.06	763.4	45.1	7.3	39	WNW			2		6	E		0.197	5.0		
Livorno			29.88	759.0	62.8	17.1	27	ENE	12.0	5.3			8			0	0		
Urbino			29.93	760.3	41.0	5.0	98	N			2		10			0.205	5.2		
Ancona			30.02	762.4	45.3	7.4	77						10			0.071	1.8		
Siena			29.92	760.0	52.9	11.6	67	E	0	0			10	N		0	0		
Rome			29.80	756.3	59.7	15.4	83	WSW	1.8	0.8			9	SW		0.007	1.7		
Naples, O.U.			29.92	760.0	61.0	17.2	74	SW			2		7	SW		0	0		
Lecce			29.95	760.6	57.4	14.1	79	SW	15.0	6.7			7			0	0		
Cosenza			29.93	760.2	66.2	19.0	49	NNE			1		3	WNW		0	0		
Catania, (Sicily)			29.91	759.8	65.7	18.7	89	ESE			2		0			0	0		
Riposto																			
Palermo			29.86	758.4	62.1	16.7	62	NE			4		6			0	0		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.98	761.5	44.2	6.8		ESE			5								
Groningen			30.13	765.4	37.6	3.1		E			5								
Helder			30.11	764.7	38.3	3.5		ENE			4								
Utrecht			30.00	762.0	44.8	7.1		E			5		0						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea-level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.42	772.7	50.0	10.0	39	NW	1.1	0.5			0				0		
Christiania			30.48	774.3	45.3	7.4	50	ENE	5.8	2.6			0				0		
Tromsö					37.4	3.0	93												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.67	753.1			52.9	11.6	54	NNW	27.3	12.2			5			Blank	Blank	Rain	

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.23	767.7	32.7	0.4	87	N	4	2			10						Astronomical Obs.
Wilna			30.25	768.4	26.4	— 3.1	68	N	4	2			2						Astronomical Obs.
Dorpat			30.43	773.0	19.9	— 6.7	55	NE	7	3			5						Physical Cabinet.
St. Petersburg			30.00	762.0	15.3	— 9.3	54	N	2	1			4						Central Physical Obs.
Kieff			29.95	760.7	26.6	— 3.0	100	N	7	3			9						Physical Cabinet.
Nikolaiev			29.94	760.5	29.1	— 1.6	90	SW	4	2			10						
Kertch			29.93	760.2	41.4	5.2	43	WNW	10.1	4.5			4						Lagorio.
Moscow			30.03	762.8	15.8	— 9.0	71	N	13	6			10						Meteorological Obs.
Lugan			29.76	756.0	24.1	— 4.4	86	WSW	10.1	4.5			10			Blank	Blank	Snow	Meteorological Obs.
Archangel			30.24	768.0	11.8	—11.2	93	W	16.8	7.5			10						Ogorodnikof.
Tiflis			30.08	764.1	42.4	5.8	68	SE	7.8	3.5			6						Physical Obs.
Astrakhan			30.15	765.7	35.1	1.7	51	S	13	6			7						Sebastianof.
Kasan			29.98	761.4	14.4	— 9.8	81	E	7.8	3.5			7						Physical Cabinet.
Orenburg			30.21	767.3	5.9	—14.5	100	E	4	2			10						Tschernischef.
Ekaterinburg			30.34	770.5	6.6	—14.1	79	Calm	0	0			0						Meteorological Obs.
Kasaly			30.32	770.2	23.9	— 4.5	63	Calm	0	0			3						Bobrof.
Tashkend			30.28	763.9	41.4	5.2	78	Calm	0	0			0						Michelson.
Barnaul			30.23	767.7	12.4	—10.9	66	E	4	2			4						Meteorological Obs.
Yeniseisk			30.04	762.9	9.0	—12.8	72	W	10.1	4.5			4						Yarks.
Irkutsk																			Usolzef.
Oorga			29.91	759.6	33.1	0.6	40	Calm	0	0			9						Mossin.
Peking, (China)			29.98	761.5	43.0	6.1	95	Calm	0	0			6						Physical Observatory
Nertchinsk			29.97	761.2	28.8	— 1.8	88	ENE	7.8	3.5			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.78	756.5	42.4	5.8	93	NW	29.7	13.3			9			Blank	Blank	Rain	Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.47	773.7	42.1	5.6	58	NNW			2		0			0	0		
Hernosand			30.50	774.8	40.4	8.0	45	Calm			0		0			0	0		
Stockholm			30.43	772.9	43.5	6.4	68	NNE			2		10			0	0		
Wisby			30.58	776.6	34.2	1.8	90	N			2		0			0	0		
Upsala—(Sub-Series)			30.48	774.1	37.4	3.0	80	WNW			1		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.46	722.8			34.2	6.8	38	NE			2		6			0.303	7.7	Fog	The Observatory.
Zurich	28.26	717.8			42.6	5.9	80	NE			1		6			0.20	5.0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.0mm.; Thermometer, —0°.6 C.; Relative Humidity, —23 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.05	763.3	59.9	15.5	70	SSE			1		0						
Constantinople			29.98	761.5	41.4	5.2	84	NNE	7.8	3.5			10		NE	0.30	7.6		
Fao, (Persian Gulf)			30.20	767.0	68.9	20.5		SW			1		10						
Salonica			29.88	759.0	53.6	12.0		SE			1		10						
Valona			29.87	758.8	68.5	20.3		SW			3		5						
Varna			30.04	763.0	41.0	5.0		N			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Brockville			30.13	765.3	23	— 5.0		S	5	2.2			10		S	0	0		
Cape Roziere, Quebec			29.96	761.0	26	— 3.3	94	NW	3	1.3		8	8	N	N	0.25	6.3		
Chatham, N. B.			29.95	760.7	34	1.1	71	N	6	2.7		2	0	W		0.02	0.5		
Charlottetown, P. E. Island			29.85	758.2	29	— 1.7	78	NW	15	6.7		0	0			0.04	1.0		
Father Point, Quebec			30.07	763.8	26	— 3.3	58	W	4	1.8		0	0			0.03	0.8		
Fort Garry, Manitoba			29.82	757.4	4	—15.6	100	N	5	2.2			5			0.06	1.52		
Halifax, N. S.			29.84	757.9	31	— 0.6	86	W	6	2.7		0	0			0.07	1.8		
Kingston, Ontario			30.11	764.8	20	— 6.7	97	Calm	0	0		10	0			0	0		
Montreal, Quebec			30.15	765.8	20	— 6.7	82	NE	5	2.2		Haze	2			0.01	0.3		
Ottawa, Ontario			29.95	760.7	13	—10.6	66	N	2	0.9		10	0	N		0	0		
Parry Sound, Ontario			30.03	762.7	15	— 9.4	82	E	9	4.0		2	5	N		0	0		
Port Dover, Ontario			29.93	760.2	28	— 2.2	77	N	8	3.6		10	0	SW		0	0		
Port Stanley, Ontario			29.95	760.7	29	— 1.7	83	W			2		10		W	Blank	Blank	Light snow.	
Quebec, Quebec			30.04	763.0	27	— 2.8	88	Calm	0	0		0	0			0.20	5.1		
Saugeen, Ontario			29.97	761.2	20	— 6.7	92	E	4	1.8		2	5			0	0		
Stayner			29.98	761.5	21	— 6.1	93	Calm	0	0			Haze			0	0		
Sydney, C. B.			29.75	755.6	33	— 0.6	85	W	7	3.1		5	5		NW	0.12	3.0	Clearing	
Toronto, Ontario			29.97	761.2	28	— 2.2	86	NE	12	5.4			10		SW	0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Byt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.07	763.8	26	— 3.3	88	SW	2	0.9			10		SW	0	0		
Alpena, Mich.			29.93	760.2	22	— 5.6	85	E	1	0.4			10			0.01	0.3	Light snow.	
Atlantic City, N. J.			29.96	761.0	36	2.2	100	NE	24	10.7			10			0.23	5.8	Light rain.	
Augusta, Ga.			30.03	762.7	59	15.0	94	S	2	0.9			10		S	0.10	2.5	Light rain.	
Baltimore, Md.			29.93	760.2	38	3.3	90	NE	4	1.8			10			0.36	9.1	Threatening	
Barnegat, N. J.			30.00	761.9	35	1.7	100	NE	16	7.2			10		NE	0.62	15.7	Heavy rain.	
Benton, Montana			29.61	752.1	23	— 5.0	86	SW	8	3.6		5	0	N		0.03	0.8		
Bismarck, Dakota			29.74	755.4	16	— 8.9	33	NE	1	0.4		5	0	N		0.05	1.3		
Boston, Mass.			30.07	763.8	33	0.6	69	N	4	1.8			10			0	0		
Breckenridge, Minn.			29.64	752.8	28	— 3.3	88	SE	10	4.5			10			0	0		
Buffalo, N. Y.			29.89	759.2	28	— 2.2	78	E	12	5.4		2	Sm'e	W		0	0		
Burlington, Vt.			30.12	765.0	23	— 5.0	73	N	5	2.2			10			0	0		
Cairo, Ill.			29.97	761.2	44	6.7	100	S	4	1.8			Fog			0.26	6.6	Fog.	
Cape Hatteras, N. C.			29.98	761.5	60	15.6	88	W	6	2.7			10			0.03	0.8		
Cape Henry, Va.			29.93	760.2	58	14.4	84	SW	13	5.8		8	2			0	0		
Cape May, N. J.			29.95	760.7	39	3.9	100	NE	12	5.4			10			0.27	6.9	Light rain.	
Charleston, S. C.			30.07	763.8	58	14.4	100	SW	2	0.9			Fog			0.14	3.5	Fog.	
Cheyenne, W. T.			29.57	751.1	23	— 5.0	85	S	8	3.6			10			0.01	0.3	Threatening	
Chicago, Ill.			29.60	751.8	36	2.2	70	S	5	2.2		0	Fog			0.08	2.0		
Cincinnati, Ohio			29.94	760.5	44	6.7	84	SW	4	1.8			10			0.01	0.3		
Cleveland, Ohio			29.85	758.2	32	0.0	95	E	2	0.9			10			0.09	2.3		
Colorado Springs, Col.			29.58	751.3	39	3.9	34	Calm	0	0		0	2		NW	0	0		
Corsicana, Texas			29.92	760.0	56	13.3	87	S	6	2.7		5	5	W		0	0		
Davenport, Iowa			29.74	755.4	35	1.7	90	S	1	0.4		5	Sm'e	W		0	0		
Denver, Col.			29.66	753.4	30	— 1.1	69	N	6	2.7		0	2			0	0		
Detroit, Mich.			29.88	758.9	29	— 1.7	84	E	7	3.1			10			0.10	2.5		
Dodge City, Kansas			29.43	747.5	32	0.0	69	N	4	1.8		0	0			0	0		
Dubuque, Iowa			29.77	756.1	32	0.0	89	SE	4	1.8			Fog			0.07	1.8	Fog.	
Duluth, Minn.			29.77	756.1	20	— 6.7	84	N	6	2.7			10			0.12	3.0		
Eastport, Me.			30.00	762.0	27	— 2.8	77	N	12	5.4		5	0	NW		0.01	0.3		
Erie, Penn.			29.87	759.7	32	0.0	89	NE	8	3.6			10			Blank	Blank	Sleet.	
Escanaba, Mich.			29.86	758.4	19	— 7.2	84	N	4	1.8			10		N	0.03	0.8		
Fort Gibson, I. T.			29.77	756.1	54	12.2	37	SE	12	5.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.70	754.4	22	— 5.6	79	Calm	0	0		0	5			0	0		
Galveston, Texas			30.00	762.0	67	19.4	94	S	3	1.3			Fog			0	0	Fog.	
Grand Haven, Mich.			29.84	757.9	32	0.0	79	SE	5	2.2			10			0	0		
Indianapolis, Ind.			29.90	759.4	40	4.4	82	SE	2	0.9		0	Fog			0	0		
Indianola, Texas			29.97	761.2	69	20.6	100	S	12	5.4			Fog			0	0		
Jacksonville, Fla.			30.10	764.5	68	20.0	90	SW	8	3.6			10			0.12	3.0		
Keokuk, Iowa			29.72	754.9	41	5.0	69	SW	11	4.9		2	0	SW		0	0		
Key West, Fla.			30.16	766.0	77	25.0	72	SE	5	2.2		Haze	Haze			0	0		
Kittyhawk, N. C.			29.97	761.2	54	12.2	93	W	12	5.4			10		SW	0	0		
Knoxville, Tenn.			29.96	761.0	53	11.7	93	SW	2	0.9		2	Fog	W		0.34	8.6	Clearing.	
La Crosse, Wis.			29.71	754.6	37	2.8	100	SE	4	1.8			Fog			0.32	8.1	Fog.	
Leavenworth, Kan.			29.69	754.1	37	2.8	71	S	1	0.4		0	0		W	0	0		
Lexington, Ky.			29.95	760.7	51	10.6	79	W	8	3.6			10			0.44	11.2		
Long Branch, N. J.			30.04	763.0	32	0.0	89	NE	8	3.6			10			Blank	Blank	Light rain.	
Louisville, Ky.			29.95	760.7	47	8.3	85	S	8	3.6		0	Fog			0.82	20.8		
Lynchburg, Va.			29.91	759.7	52	11.1	86	W	2	0.9		10	0	W		0.07	1.8		
Malone, N. Y.																			
Marquette, Mich.			29.84	757.9	23	— 5.0	86	SE	4	1.8			10			0.01	0.3	Fog.	
Memphis, Tenn.			30.00	762.0	54	12.2	100	N	1	0.4			Fog			0.01	0.3	Fog.	
Milwaukee, Wisconsin			29.83	757.7	35	1.7	90	SW	6	2.7			Fog			0.04	1.0	Fog.	
Mobile, Ala.			30.07	763.8	67	19.4	94	SW	5	2.2			10			0	0		
Montgomery, Ala.			30.05	763.3	64	17.8	97	W	7	3.1			10		N	0.30	7.6	Heavy rain.	
Morgantown, W. Virginia			29.84	757.9	45	5.0	76	W	2	0.9		0	8			0.42	10.7		
Mt. Washington, N. H.			29.93	760.2	10	—12.2	79	NW	18	8.0		2	0	NW		0	0		
Nashville, Tenn.			30.00	762.0	54	12.2	93	Calm	0	0		0	Fog			0	0		
New Haven, Conn.			30.08	764.0	31	— 0.6	79	NE	9	4.0			10		NE	0	0		
New London, Conn.			30.08	764.0	32	0.0	69	N	6	2.7			10			0	0		
New Orleans, La.			30.07	763.8	68	20.0	95	SW	7	3.6		5	2	W	W	0	0		
Newport, R. I.																			
New York, N. Y.			30.03	762.7	32	0.0	79	E	16	7.2			10			0.02	0.5	Sleet.	
Norfolk, Va.			29.94	760.5	56	13.0	90	SW	12	5.4		5	5			0	0		
North Platte, Neb.			29.33	745.0	33	0.6	70	Calm	0	0		0	2		W	0	0		
Omaha, Neb.			29.66	753.3	38	3.3	72	Calm	0	0		0	2			0	0		
Oswego, N. Y.			30.06	763.5	30	— 1.1	73	SE	3	1.3			10			0	0		
Peck's Beach			29.97	761.2	36	2.2	100	NE	24	10.7			10			0.32	8.1	Light rain.	
Pembina, D. T.																			
Philadelphia, Penn.			29.99	761.7	32	0.0	100	E	16	7.2			10		E	0.23	5.8	Light rain.	
Pike's Peak, C. T.			29.54	750.3	3	—16.1	100	SW	48	21.5			Fog			0	0	Fog.	
Pittsburgh, Penn.			29.83	757.7	39	3.9	81	Calm	0	0			10			0	0		
Port Huron, Mich.			29.90	759.4	26	— 3.3	88	NE	4	1.8			10			0.02	.5	Light snow	
Portland, Maine			30.11	764.8	32	0.0	60	N	4	1.8		5	Haze	S		0.02	0.5		
Portland, Or.			29.98	761.5	35	1.7	90	W	6	2.7			10			0.40	10.2	Light rain.	
Punta Rassa, Fla.			30.17	766.3	70	21.1	90	SE	8	3.6		5	Haze			0	0		
Rochester, N. Y.			29.96	761.0	27	— 2.8	88	E	8	3.6			8			0	0		
Salt Lake City, Utah			29.64	752.8	35	1.7	61	N	1	0.4			10			0.21	5.3	Snow.	
Sandy Hook, N. J.			30.02	762.5	32	0.0	100	NE	12	5.4			10		E	0.06	1.5	Light rain.	
San Diego, Cal.			30.08	764.0	55	12.8	73	E	4	1.8			10			0	0		
San Francisco, Cal.			30.12	765.2	46	7.8	69	W	20	8.9		0	0			0	0		
Santa Fe, N. M.			29.60	751.8	29	— 1.7	56	E	8	3.6		0	0			0	0		
Savannah, Georgia			30.04	763.0	65	18.3	94	SW	6	2.7			Fog			0.12	3.0	Fog.	
Shreveport, La.			29.99	761.2	62	16.7	100	SE	3	1.3			10		SE	0.03	0.8		
Springfield, Mass.			30.09	764.3	29	— 1.7	67	N	4	1.8			5			0	0		
St. Louis, Mo.			29.90	759.4	44	6.7	84	NW	16	7.2		Haze	0			0.17	4.3		
St. Marks, Fla.			30.17	764.5	66	18.9	97	SW	8	3.6			Fog			1.23	31.2	Fog.	
St. Paul, Minn.			29.64	752.8	32	0.0	89	SE	4	1.8			10			0.10	2.5		
St. Paul's Island, Alaska			30.04	763.0	31	— 0.6	100	E	67	29.3		0	10			0.34	8.6		
Squan Beach, N. J.			30.03	762.7	32	0.0	90	NE	18	8.0			10		NE	0.15	3.8	Heavy rain.	
Toledo, Ohio			29.82	757.4	33	0.6	89	NE	1	0.4			Fog			0.10	2.5	Fog.	
Tybee Island, Ga.			30.09	764.3	60	15.6	100	Calm	0	0			10		SW	0.21	5.3	Fog.	
Vicksburg, Miss.			30.07	763.8	66	18.9	70	Calm	0	0		5	0			0	0		
Virginia City, Mon.			29.23	742.4	13	—10.6	80	Calm	0	0			10			0	0		
Washington, D. C.			29.94	760.5	37	2.7	95	N	8	3.6			10		NE	0.36	9.1	Fog.	
Wilmington, N. C.			30.03	762.7	59	15.0	87	SE	5	2.2			10		SW	0.02	0.5		
Wood's Hole, Mass.			30.08	764.0	31	— 0.6	68	NE	4	1.8			10			0	0		
Wytheville, Va.			29.71	754.6	52	11.1	86	SW	2	0.9		8	0	W		0.07	1.8		
Yankton, D. T.			29.70	754.4	30	— 1.1	83	SW	1	0.4			10		W	0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	27.7		NE	2	0.9		0	5			0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.05	763.3	73	22.8		E				8	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.96	761.0	71	21.7	81	E	5	2.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768.8	75	23.9	93	Calm	0	0		1	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.94	760.5	75	23.9	63	NW	1	0.4		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.01	762.2	62	16.7	75	SW	17	7.6		8	1	NNW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	762.7	68	20.0		NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	58	14.4	76	SE	7.2	3.2		0	2			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.83	757.7	0	—17.8	100	N	14	6.2			10			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.11	764.8	63	17.2		NW	2	0.9			5			0	0		C. Partridge.
St. Johns, Newfoundland			29.94	760.5	20	— 6.7	93	S				Sm'e	Sm'e			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.21	767.3	71.2	21.8	86	SE			2	1	7			0	0		Leon M. Acuña.
Ellyria, Ohio	29.06	738.1			32	0.0	89	Calm	0	0		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.86	733.0			37	2.8		SW				0	1			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 14, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.93	760.3															Charnot.
Algiers			29.87	758.8	60.1	15.6	60	W			5		5			0.815	20.7		Peter.
La Calle			29.80	756.8															Kuntz.
Tunis			29.78	756.3	65.1	18.4	42	NW			3		5			0	0		Jacques.
Sfax			29.85	758.2															Chauvey.
Salda			29.98	761.4	50.4	10.2		WNW			2		6			0.197	5.0	Rain	Grosjean.
Tebessa			29.82	757.3															Colin.
Geriville			30.00	762.1	48.2	9.0		WNW			4		2			0	0		Bernadach.
Laghouat			30.05	763.3	57.2	14.0	28	NW			4		3						Poinsignon.
Biskra			29.90	759.5	68.5	20.3	24	NW			4		3			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall. Inches.	Rainfall. Millimeters.	Weather.	Observer.
Agram			30.28	769.0	42.3	5.7	82	NE			1		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.43	772.8	32.0	0.0	86	NE			3		1			0	0		I. R. Observatory.
Eperies			30.33	770.4	30.1	− 0.6	61	N			3		1			0	0		Julius Mikolik.
Gratz			30.33	770.4	37.4	3.0	75	NNE			2.5		10			0	0		Andreas Rospini.
Hermanstadt			30.22	767.5	33.1	0.7	71	NE			1		2			0.106	2.70		Prof. Reissenberger.
Kremsmünster			30.18	766.6	34.0	1.6	78	E			8		0			0	0		Prof. C. Wagner.
Lemberg			30.35	770.8	24.0	− 4.1	84	N			3		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.31	769.9	34.5	1.4	82	N			4		0			0	0		Habzsuda Daniel.
Pola			30.06	763.0	46.8	8.2	41	E			7		3			0	0		I. R. Hydrographic Office
Szegedin			30.28	769.2	33.4	0.8	87	E			2		0			0	0		Karl Stancel.
Trieste			30.08	764.1	46.0	7.8	41	ENE			5		0						Prof. V. Farolfi.
Vienna			30.33	770.3	33.1	0.6	84	ENE			1		9			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall. Inches.	Rainfall. Millimeters.	Weather.	Observer.
Brussels	29.85	758.2			46.9	8.3	62	SE			3		2		SSE	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.35	770.9	38.0	3.3		SE	17	7.6			9						William Boswell.
Annanhill																			W. H. Dunlop.
Ardrossan																			William McNeil.
Armagh Observatory			30.19	766.8	40.2	4.6		E	9	4.0									Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.15	765.8	42.9	6.1		ENE			3		5					Mist	The Liverpool Obs.
Birr Castle			30.12	765.0	45.1	7.3		ESE			1		10						J. Dreyer.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.13	765.3	46.5	8.1		E			1		1						H. Todd.
Cape Town, Cape Colony			29.91	759.7	78	25.6		SE			1		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.89	759.2			66.0	18.9	48	S	3	1.3			4						The Royal Observatory.
Cardington			30.13	765.3	44.0	6.7		E			1		8						John McLaren.
Carlisle			30.22	767.6	46.2	7.9		E					3			0	0		T. Bell.
Chatham			30.07	763.8	41.8	5.4		N			3		6					Clearing	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.93	760.2	82.3	27.9		SW			2		6						Sgt. W. F. Hopkins
Dartmoor			30.12	765.0	37.0	2.8		NE			2		10					Fog	R. E. Power.
Donaghadee			30.21	767.3	42	5.6		ESE			3		10						J. Mac Gowan, Jr.
Dover			30.07	763.8	43	6.1		ENE			4		4						J. Costello.
Dublin																			
Durham Observatory			30.25	768.3	37.1	2.8		E					10						G. Goldney.
Eccles, (near Manchester)			30.18	766.6	42.8	6.0		ENE	1.8	0.8			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.06	763.5	44.7	7.1		WNW	3	1.3			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.69	754.1	93.0	33.0		E			1		1						Pvt. G. Salmon.
Galway			30.08	764.0	50	10.0		E			1		2						Queen's College.
Gibraltar, (Mediterranean)			30.06	763.5	59.8	15.4		WNW			2		0						Sgt. J. Brewster.
Glasgow Observatory			30.24	768.1	40.0	4.4		ENE			2		10						The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.14	765.5	40	4.4		E			5		4					Mist	G. T. Watson.
Greenwich Royal Obs.			30.09	764.3	45.9	7.7		ENE			3		7						The Royal Observatory.
Guernsey			30.01	762.2	47.5	8.6		ENE			2		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.24	768.1	36.0	2.2		E					10						Moorside Observatory.
Halifax, (Nova Scotia)			30.06	763.5	26.4	−3.1		NW			3		2						Corp'l J. Y. Thompson.
Helston			30.02	762.5	48	8.9		E			4		10						W. B. Moyle.
Holyhead			30.11	764.8	42	5.6		E			4		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.10	764.5	44.1	6.7		ENE	16	7.2			10					Mist	The Met. Office.
Kingstown			30.13	765.3	44	6.7		E			2		10					Mist	George Mitchell.
Lampeter																			
Leicester			30.16	766.1	40.6	4.8		E			3		10						William J. Harrison
Llandudno			30.17	766.3	41.0	5.0		E					10						Dr. James Nicol.
Malta, (Mediterranean)			29.80	756.9	60.2	15.7		NW			2		10						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.27	768.8	44	6.7		SSE			1		2						William D. Penny.
Nassau, (Bahamas)			30.14	765.5	75.0	23.9		SE			2		4						Surgeon I. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.19	766.8	39.4	4.1		ENE			3		10		ENE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.15	765.8	40.0	4.4		ENE			4		10					Mist	St. Mary's College.
Oxford, Radcliffe Obs.			30.10	764.5	43	6.1		ENE			2		10						Radcliffe Observatory.
Plymouth			30.04	763.0	44.5	6.9		ENE			1		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.09	764.3	46	7.8		E			4		8						W. Kennedy.
Saint Ann's Head																			John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.32	770.1	41.1	5.1		SE	23	10.3			10						Rev. Dr. Clouston.
Scarboro'																			F. Heard.
Scutari, (Turkey)			30.12	765.0	38.0	3.3		NE			3		10					Light rain	W. H. Lyne.
Sheffield			30.21	767.3	38.6	3.7		E			1		10						W. F. Cooper.
Sidmouth																			
Stiloth Rectory			30.20	767.1	47.7	8.7		E			3		1			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.14	765.5	43.3	6.3		ENE			1		6						Rev. C. J. Steward.
Stonyhurst Observatory			30.20	767.1	40.6	4.8					2		6					Haze	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.24	768.1	42	5.6		SE			3		2						John Smith.
Strathfield Turgiss			30.08	764.0	48.6	9.2		NE			1		0						Charles H. Griffith.
Streatley Vicarage			30.10	764.5	46.1	7.8		ENE			2		7						Rev. John Slatter.
Sumburgh Head, Shetland			30.37	771.4	44	6.7		SSE			4		8						William Lawrence.
Taunton College																			
Thurso			30.32	770.1	41	5.0		SSE			2		7						John Trotter.
Truro, Royal Institution			29.98	761.5	47	8.3		N			2		10						Royal Institution.
Valencia			30.07	763.8	46.1	7.8		SE	13	5.8			5						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.54	775.8	35.1	1.7	69	E			2		0						
Fanöe			30.46	773.6	39.7	4.3	55	ESE			6		0						
Godthaab, (Greenland)			30.30	771.2	11.1	−11.6		NE			4		2						
Stykkisholm, (Iceland)			30.27	768.8	36.8	2.4	94	E			4		5						
Thorshavn, (Faröe)			30.34	770.6	44.7	6.9	65	SE			2		10					Rain	
Vestervig			30.46	773.6	40.3	4.6	62	E			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.76	755.8	59.0	10.0	95						10					Rain	Normal School.
Alençon			30.24	768.0	56.1	13.4	75	E			1		2			0	0		Normal School.
Amiens			29.98	761.4	55.4	13.0	79	E			3		10			0.055	1.4		Normal School.
Beaumette, (near Angers)			29.92	759.9	57.2	14.0	80	NE	0.0	0.0			10		NE	0.102	2.6		Beaumette Observatory.
Beauvais			30.01	762.3	49.1	9.5	56	E			1		0			0	0		Normal School.
Besançon			29.90	759.5	51.2	10.6	72	ENE			2		2		NNE	0	0		Normal School.
Bourges			29.94	760.5	50.	10.0		N			2		5		N	0	0		Normal School.
Brest			29.96	760.9	45.1	7.3	88	N			3				N	0.010	0.25	Fog, Lt. rain	Naval Observatory.
Caen			29.98	761.5	50.9	10.5	68	N			2		0		SE	0	0		Normal School.
Carcassonne																			
Chartres			29.97	761.2	54.7	12.6		E			1		5		E	0	0		Normal School.
Chaumont			29.92	760.0	47.7	8.7		WNW			3		0			0	0		Normal School.
Le Mans			29.97	761.1	52.7	11.5	69	E			2		2		S	0	0		Normal School.
Mirecourt			29.89	758.2	45.5	7.5		N			2		0			0	0		Normal School.
Orleans			29.95	760.7	51.1	10.6	60	ENE			2					0	0		Normal School.
Paris			29.96	761.0	51.8	10.9		NE			2		0			0	0		National Observatory.
Parthenay			29.91	759.7	55.3	13.5	75	NW			2		5		SE	0	0		
La Roche sur Yon			29.99	761.7	53.6	12.0	72	NE			2		10			0.098	2.5		Normal School.
Rouen			29.97	761.3	54.7	12.6	54	ENE			3		0			0	0		Normal School.
Saint Lo			29.99	761.8	55.8	13.2	57	E			0		0						Normal School.
Villefranche			29.95	760.6	52.9	11.6	85	NE			1		2			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)			29.88	758.9	74.5	23.6	69	N			1		0			0	0		Père Pascall.
Mont-Louis	24.62	625.4			32.7	0.4	84	NNW	28.0	12.5			10		NNW	0.012	0.3		—, Faiguère.
Montsouris (near Paris)			29.96	761.0	51.8	11.0	54	NE	4.5	2.0			3			0	0		Marié Davy.
Perpignan	29.71	754.7			50.9	10.5	81	WNW	11.2	5.0			7			0.839	21.3	Rainy	Dr. Fines.
Saint Maur, (near Paris)			29.97	761.2	53.6	13.0	47	NE			1					0	0		E. Renou.
Saint Pierre, (Martinique)																			C. Marquet.
Tours			29.94	760.4	58.3	14.6	68	NNE			1		5		ESE	0	0		Dr. A. Bérigny.
Versailles, (near Paris)			29.97	761.3	54.0	12.2	56	NE			3		5			0	0		H. Le Lec.
Zi-Ka-Wei, (near Shanghai)																			

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.12	765.0	41.0	5.0	54	E			4		2			0	0		Prof. Hoh.
Berlin			30.46	773.7	37.2	2.9	56	SE			2		0			0	0		Prof. Arndt.
Breslau			30.46	773.7	33.8	1.0	77	ESE			3		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.00	762.0	51.4	10.8	45	NE			2.7		1			0	0		A. Senz.
Cassel			30.19	766.9	44.1	6.7	52	NE			5		0			0	0		Dr. H. Möhl.
Cologne			30.09	764.4	53.1	11.7	51	SE			1		3			0	0		Dr. Garthe.
Emden			30.41	772.3	43.5	6.4	46	E			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.18	766.6	52.2	11.2	36	ENE			2		0			0	0		Physical Society.
Friedrichshafen			29.97	761.2	45.5	7.5	79	NE					0			0	0		M. Wilhelm.
Hamburg			30.41	772.4	45.1	7.3	31	E			4		1			0	0		W. Reinert.
Kiel			30.44	773.2	39.4	4.1	56	E			4		0			0	0		Prof. G. Karsten.
Königsberg			30.55	775.9	27.7	— 2.4	46	NE			2		0			0	0		Prof. E. Luther.
Köslin			30.78	781.8	36.5	2.5		E			2		4			0	0		Dr. T gert.
Leipsic			30.35	770.9	38.1	3.4	60	E			5		1			0	0		Prof. Bruhns.
Münster			30.19	766.9	43.3	6.3	72	E			3		0			0	0		Prof. E. Heis.
Posen			30.56	776.1	32.9	0.5	62	E			6-7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.96	761.0	51.3	10.7	37	N					1			0	0		Hartwig and Tülk.
Stuttgart			30.05	763.3	50.0	10.0	32	SE					0			0	0		Mr. Würth.
Thorn			30.51	774.9	32.9	0.5	57	NE			4		9			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.98	761.5	49.1	9.5	43	E			7		0			0	0		Prof. Flesch.
Wustrow			30.51	774.9	35.6	2.0	70	NE			5		0			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.10	764.5	43.7	6.5	69	ESE			4		9			0	0		Prof. F. Brioschi.
Mondovi			30.11	764.9	37.6	3.1	86	WNW			4		10			0	0	Sleet	
Genoa			29.93	760.2	49.3	9.6	46	N	10.5	4.7			10	SE		0	0		
Pavia			30.09	764.2	43.7	6.5	65	ENE			4		9	E		0	0		
Verona			30.07	763.7	49.1	9.5	48	SE			8		3			0	0		
Padua			30.07	763.8	47.8	8.8	44	ESE	22.4	1[illegible].0			3			0	0		
Parma																			
Bologna			30.13	765.3	42.8	6.0	45	W			2		4	W		0	0		
Livorno			29.87	758.8	46.8	8.2	31	E	26.2	11.7			10			0	0		
Urbino			30.07	763.7	41.9	5.5	84	ENE			4		10			0	0		
Ancona			30.04	762.9	48.6	9.2	62	E			2		10			0	0		
Siena			29.80	756.2	45.0	7.7	53	ENE	23.0	10.3			10	E		0	0		
Rome			29.78	756.3	60.8	16.0	55	ESE	8.7	3.9			10	NE		0	0		
Naples, O.U			29.84	757.9	62.4	16.9	43	NW			4		4	SW		0	0		
Lecce			30.03	762.8	54.7	12.6	58	WNW	16.8	7.5			7			0	0		
Cosenza			29.99	761.8	58.1	1[illegible].5	51	WNW			2		10			0	0		
Catania, (Sicily)			29.92	759.9	59.5	15.3	72	E			4		0			0	0		
Siposto																			
Palermo			29.69	754.1	64.2	17.9	62	N			2		7			Blank	Blank		
Naples, S. R.—(Sub-Series)																			

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.11	764.8	46.4	8.0		E			5								
Groningen			30.22	767.6	41.0	5.0		E			5								
Helder			30.20	767.1	39.6	4.2		ENE			4								
Utrecht			30.11	764.9	45.5	7.5		ENE			4		0						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.49	774.5	43.5	6.4	58	NNW	3.6	1.6			0				0		
Christiania			30.56	776.2	38.5	3.6	54	WSW	0.2	0.1			2				0		
Tromsö					38.5	3.6	95												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.84	758.0			53.8	12.1	62	SSW	9.8	4.4			7						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.47	773.9	28.9	— 1.7	94	N	7	3			0						Astronomical Obs.
Wilna			30.48	774.2	23.7	— 4.6	66	N	4	2			10						Astronomical Obs.
Dorpat			30.43	773.0	38.1	3.4	72	NW	7	3			9						Physical Cabinet.
St. Petersburg			30.34	770.5	32.5	0.3	89	NW	4	2			10						Central Physical Obs.
Kieff			30.24	768.1	17.2	— 8.2	71	NNW	16	7			5						Physical Cabinet.
Nikolaiev			30.15	765.8	19.4	— 7.0	75	N	13	6			0						
Kertch			29.97	761.1	27.3	— 2.6	81	NNW	13	6			6						Lagorio.
Moscow			30.25	768.4	17.1	— 8.3	67	N	10.1	4.5			7						Meteorological Obs.
Lugan			29.72	755.0	31.3	— 0.4	72	Calm	0	0			9			Blank	Blank	Snow	Meteorological Obs.
Archangel			30.14	765.5	32.4	0.8	85	WNW	16.8	7.5			4						Ogorodnikof.
Tiflis			29.93	760.2	47.2	8.4	79	NNE	4	2			5						Physical Obs.
Astrakhan			30.09	764.2	37.4	3.0	76	ESE	4	2			10						Sebastianof.
Kasan			30.14	765.6	10.0	—12.2	93	S	3.4	1.5			2						Physical Cabinet.
Orenburg			30.41	772.4	10.9	—11.7	100	E	4	2			0						Tschernischef.
Ekaterinburg			30.2[illegible]	767.5	16.3	— 8.7	69	SW	13	6			2						Meteorological Obs.
Kasaly			30.33	769.5	26.7	— 2.4	83	NE	7.8	3.5			3						Bobrof.
Tashkend			30.37	771.3	29.8	— 1.2	100	W	7.8	3.5			10			Blank	Blank	Snow	Michelson.
Barnaul			30.24	768.2	12.7	—10.7	73	WSW	10.1	4.5			4						Meteorological Obs.
Yeniseisk			29.96	761.0	6.3	—14.3	71	S	7.8	3.5			0						Marks.
Irkutsk																			Usolzef.
Oorga			30.40	772.2	12.6	—10.8	90	Calm	0	0			0						Mossin.
Peking, (China)			30.12	765.1	46.2	7.9	93	Calm	0	0			3						Physical Observatory
Nertchinsk			29.96	760.0	28.6	— 1.9	90	Calm	0	0			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	763.0	52.2	11.2	53	SSW	9.6	4.3		1	1	SW		0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.31	769.8	33.8	1.0	75	S			2		5			0	0		
Hernosand			30.37	771.3	43.5	6.4	33	NE			2		0			0	0		
Stockholm			30.46	773.7	42.1	5.6	83	WSW			0		2			0	0		
Wisby			30.52	775.3	33.8	1.0	81	N			0		2			0	0		
Upsala—(Sub-Series)			30.47	773.9	42.4	5.8	56	SSW			1		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.47	723.0			46.4	8.0	36	NNW			2		8			0	0		The Observatory.
Zurich	28.29	718.5			40.8	4.9	76	E			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values r. : Barometer, —1.7mm.; Thermometer, —0°.5 C.; Relative Humidity, —25 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.13	765.4	34.3	1.3	76	N	20.1	9.0			10		N	Blank	Blank		
Fao, (Persian Gulf)			30.21	767.3	71.6	22.0		NW			1		10						
Salonica			30.05	763.3	55.9	13.3		NE			3		10						
Valona			29.97	761.3	63.0	17.2		NE			3		10						
Varna			30.20	767.0	34.7	1.5		NE			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Brockville			30.11	764.8	27	— 2.8		Calm	0	0		2	0	W		0	0		
Cape Roziere, Quebec			30.16	766.1	17	— 8.3	92	N	18	8.0		5	8	N	N	0	0		
Chatham, N. B.			30.17	766.3	21	— 6.1	85	N	1	0.4		0	0			0	0		
Charlottetown, P. E. Island			30.09	764.3	23	— 5.0	96	N	11	4.9			10			0	0		
Father Point, Quebec			30.23	767.8	7	—13.9	77	SW	1	0.4		2	0			0	0		
Fort Garry, Manitoba			30.26	768.6	— 7	—21.7	96	NE	14	6.2		5	2	NE	NE	0	0		
Halifax, N. S.			29.99	761.7	26	— 3.3	89	N	5	2.2		2	0	S		0	0		
Kingston, Ontario			30.06	763.5	25	— 3.9	82	Calm	0	0		Haze	0			0	0		
Montreal, Quebec			30.16	766.1	15	— 9.4	65	E	9	4.0		0	2			0	0		
Ottawa, Ontario			30.12	765.0	5	—15.0	62	N	4	1.8		5	0	SW		0	0		
Parry Sound, Ontario			29.92	760.0	28	— 2.2	77	SE	12	5.4		2	5	SE	SE	0	0		
Port Dover, Ontario			29.89	759.2	19	— 7.2	89	N	7	3.1		10	0	N		0	0		
Port Stanley, Ontario			29.85	758.2	38	3.3	76	SE	4	1.8			10		SW	Blank	Blank	Light rain	
Quebec, Quebec			30.19	766.8	12	—11.1		Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.79	756.7	35	1.7	95	SE	17	7.6		5	5	NE	NE	0	0		
Stayner																			
Sydney, C. B.			29.94	760.5	25	— 3.9	81	NE	6	2.7			10		NE	0	0		
Toronto, Ontario			29.92	760.0	27	— 2.8	89	E	12	5.4		8	0	W		0	0		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.17	766.3	32	0.0	89	SE	4	1.8			10			0.06	1.5		
Alpena, Mich.			29.77	756.1	29	— 1.7	88	E	1	0.4			10			0	0		
Atlantic City, N. J.			30.26	768.6	34	1.1	90	SW	1	0.4			10			0.16	4.1		
Augusta, Ga.			30.10	764.5	57	13.9	94	SE	2	0.9			10		E	0.59	15.0		
Baltimore, Md.			30.23	767.8	38	3.3	90	SW	2	0.9			Fog			0	0	Fog	
Barnegat, N. J.			30.19	766.8	34	1.1	69	SW	3	1.3		0	0			0.30	7.6		
Benton, Montana			30.05	763.5	12	—11.1	100	W	4	1.8			10			0	0		
Bismarck, Dakota			30.01	762.2	3	—16.1	86	NE	17	7.6			10			0.04	1.0	Light snow	
Boston, Mass.			30.18	766.6	33	0.6	75	NW	4	1.8		0	Haze			0.01	0.3		
Breckenridge, Minn.			29.99	761.7	5	—15.0	87	N	16	7.2			10			0	0		
Buffalo, N. Y.			29.86	758.4	38	3.3	73	SE	4	1.8		Haze	Sm'e			0	0		
Burlington, Vt.			30.17	766.3	27	— 2.8	76	S	4	1.8			10			0	0		
Cairo, Ill.			29.73	755.1	62	16.7	61	S	8	3.6		2	0	SW		0	0		
Cape Hatteras, N. C.			30.20	767.1	47	8.3	85	NE	12	5.4		Haze	Haze			0.01	0.3		
Cape Henry, Va.			30.24	768.1	43	6.1	92	E	1	0.4		2	2	W		0	0		
Cape May, N. J.			30.26	768.6	35	1.7	90	S	4	1.8			Fog			0.08	2.0		
Charleston, S. C.			30.12	765.0	59	15.0	94	E	2	0.9		10	Sm'e			0.49	12.4		
Cheyenne, W. T.			29.63	752.6	12	—11.1	79	NW	15	7.2			10			0.04	1.0		
Chicago, Ill.			29.63	752.6	32	0.0	79	N	16	6.7			Fog			0	0	Fog	
Cincinnati, Ohio			29.79	756.7	51	10.6	65	SE	4	1.8		5	0			0	0		
Cleveland, Ohio			29.75	755.6	44	6.7	76	SE	16	6.7			10		SW	Blank	Blank	Light rain	
Colorado Springs, Col.			29.60	751.8	20	— 6.7	85	SE	1	0.4		Haze	10			0.32	8.1	Light snow	
Corsicana, Texas			29.72	754.9	67	19.4	84	S	12	5.4		5	0	S		0	0		
Davenport, Iowa			29.55	750.6	36	2.2	80	NE	24	10.7			10		W	0	0		
Denver, Col.			29.68	753.9	22	— 5.6	86	S	4	1.8			10			0.17	4.3	Light snow	
Detroit, Mich.			29.69	754.1	44	6.7	84	S	7	3.1		0	5			0.21	5.3		
Dodge City, Kansas			29.29	744.0	30	— 1.1	78	N	12	5.4		0	0			0	0		
Dubuque, Iowa			29.65	753.1	35	1.7	80	NE	14	6.2			10			0	0		
Duluth, Minn.			29.88	758.9	29	— 1.7	88	NE	8	3.6			10			0.03	0.8		
Eastport, Me.			30.18	766.6	27	— 2.8	77	N	9	4.0		2	0			0	0		
Erie, Penn.			29.79	756.7	45	7.2	60	SE	32	14.3			10			0.07	1.8		
Escanaba, Mich.			29.86	758.4	26	— 3.3	88	N	10	4.5			10			0	0		
Fort Gibson, I. T.			29.53	750.1	66	18.9	81	S	20	8.9		2	2	SW	S	0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.91	759.7	14	—10.0	82	E	6	2.7			10			0.15	3.8	Light snow.	
Galveston, Texas			29.86	758.4	67	19.4	94	SE	12	5.4			10		SE	0	0		
Grand Haven, Mich.			29.65	753.1	35	1.7	80	NE	8	3.6		0	0			0	0		
Indianapolis, Ind.			29.69	754.1	51	10.6	72	S	12	5.4		2	0	W		0	0		
Indianola, Texas			29.83	757.7	69	20.6	97	S	8	3.6		2	5	S	S	0	0		
Jacksonville, Fla.			30.11	764.8	67	19.4	90	SW	4	1.8			10			0	0		
Keokuk, Iowa			29.40	746.7	45	7.2	60	S	4	1.8		0	0			0	0		
Key West, Fla.			30.09	764.3	76	24.4	77	SE	9	4.0		Haze	2			0	0		
Kittyhawk, N. C.			30.24	768.1	42	5.6	92	NE	12	5.4		2	2	N		0	0		
Knoxville, Tenn.			30.04	763.0	47	8.3	77	NE	6	2.7			10		W	0	0	Threatening	
La Crosse, Wis.			29.68	753.9	35	1.7	90	NE	11	4.9		10	0	NE		0	0		
Leavenworth, Kan.			29.35	745.5	48	8.9	92	SE	1	0.4		0	Fog			0	0		
Lexington, Ky.			29.88	758.9	57	13.9	63	S	20	8.9			10			0	0		
Long Branch, N. J.			30.25	768.4	36	2.2	85	SW	2	0.9		Haze	Sm'e			0.20	5.1		
Louisville, Ky.			29.78	756.4	58	14.4	76	SE	4	1.8		10	0	SE		0	0		
Lynchburg, Va.			30.20	767.1	46	7.8	84	NE	3	1.3			10		NE	0	0		
Malone, N. Y.																			
Marquette, Mich.			29.89	759.2	26	— 3.3	88	NW	4	1.8			10			0	0		
Memphis, Tenn.			29.83	757.7	61	16.1	88	SE	5	2.2		5	5		SW	0.06	1.5		
Milwaukee, Wisconsin			29.67	753.6	31	— 0.6	89	NE	19	8.5		Haze	0			0	0		
Mobile, Ala.			30.02	762.5	65	18.3	100	S	10	4.5			Fog			0	0	Fog	
Montgomery, Ala.			30.04	763.0	66	18.9	92	Calm	0	0		10	Fog	SW		0.15	3.8		
Morgantown, W. Virginia			29.97	761.2	34	1.1	79	W	1	0.4		10	Haze	W		0.15	3.8		
Mt. Washington, N. H.			30.04	763.0	14	—10.0	82	NW	2	0.9		0	0			0	0		
Nashville, Tenn.			29.85	758.2	61	16.1	76	S	2	0.9		5	5	SW	W	0.06	1.5		
New Haven, Conn.			30.23	767.8	30	— 1.1	68	Calm	0	0		2	Sm'e	NW		0	0		
New London, Conn.			30.23	767.8	35	1.7	80	Calm	0	0		0	Fog			0.04	1.0		
New Orleans, La.			29.96	761.0	71	21.7	88	S	7	3.1			10		S	0	0	Threatening	
Newport, R. I.																			
New York, N. Y.			30.26	768.6	32	0.0	79	Calm	0	0		0	Fog			0.15	3.8		
Norfolk, Va.			30.25	768.3	44	6.7	92	SE	4	1.8			10			0	0		
North Platte, Neb.			29.37	746.0	31	— 0.6	78	Calm	0	0			10			0.02	0.5		
Omaha, Neb.			29.46	748.3	33	0.6	80	N	6	2.7			10		NE	0	0	Threatening	
Oswego, N. Y.			30.02	762.5	34	1.1	85	SE	12	5.4		2	2			0	0		
Peck's Beach			30.27	768.8	33	0.6	100	W	2	0.9			Fog			0.15	3.8	Fog	
Pembina, D. T.																			
Philadelphia, Penn.			30.26	768.6	31	— 0.6	89	SW	7	3.1			10		SW	0.07	1.8		
Pike's Peak, C. T.			29.39	746.5	— 7	—21.7	100	SW	12	5.4			Fog			0	0	Fog.	
Pittsburgh, Penn.			30.04	763.0	34	1.1	90	Calm	0	0		5	Haze	SW		0	0		
Port Huron, Mich.			29.71	754.6	42	5.6	83	S	9	4.0		0	5		SW	0	0		
Portland, Maine			30.21	767.3	30	— 1.1	68	Calm	0	0		Haze	0			0	0		
Portland, Or.			30.24	768.1	35	1.7	90	SW	4	1.8			10			0.14	3.5		
Punta Rassa, Fla.			30.13	765.3	73	22.8	85	SE	12	5.4		0	0			0	0		
Rochester, N. Y.			29.93	760.2	33	0.6	89	SE	8	3.6		5	Haze	W		0	0		
Salt Lake City, Utah			30.21	767.3	32	0.0	69	Calm	0	0		0	0			0.10	2.5		
Sandy Hook, N. J.			30.25	768.3	34	1.1	90	SW	6	2.7			Fog			0.24	6.1	Fog	
San Diego, Cal.			30.10	764.5	51	10.6	86	E	4	1.8			10			0	0		
San Francisco, Cal.			30.12	765.0	51	10.6	93	Calm	0	0			10			0	0		
Santa Fe, N. M.			29.38	746.2	33	0.6	51	SW	8	3.6			10			0	0		
Savannah, Georgia			30.10	764.5	61	16.1	94	N	3	1.3			10			0.12	3.0	Fog	
Shreveport, La.			29.80	756.9	68	28.0	94	S	4	1.8			10		S	0	0		
Springfield, Mass.			30.21	767.3	32	0.0	69	S	4	1.8		5	Haze			0.21	5.3		
St. Louis, Mo.			29.59	751.6	60	15.6	65	S	16	7.2		0	0			0	0		
St. Marks, Fla.			30.08	764.0	66	18.9	94	S	4	1.8			Fog			0.37	9.4	Fog	
St. Paul, Minn.			29.69	754.1	32	0.0	89	N	16	7.2			10		NE	0	0		
St. Paul's Island, Alaska			29.25	742.9	33	0.6	100	E	21	9.4		0	10			0.69	17.5		
Squan Beach, N. J.			30.25	768.3	30	— 1.1	89	NW	2	0.9		0	2			0.55	14.0		
Toledo, Ohio			29.64	752.8	42	5.6	83	SE	6	2.7		0	Fog			0	0		
Tybee Island, Ga.			30.12	765.0	57	13.9	100	Calm	0	0			10		SW	0.08	2.0	Fog	
Vicksburg, Miss.			29.95	760.7	68	20.0	81	S	7	3.1		2	2	S		0	0		
Virginia City, Mon.			29.54	750.3	5	—15.0	75	Calm	0	0		0	2			0.04	1.0		
Washington, D. C.			30.25	768.3	37	2.8	100	SE	4	1.8			10			0	0	Fog	
Wilmington, N. C.			30.17	766.3	54	12.2	79	E	8	3.6		5	0	W		0.10	2.5		
Wood's Hole, Mass.			30.10	762.2	33	0.6	70	Calm	0	0		0	0			0.37	9.4		
Wytheville, Va.			29.94	760.5	38	3.3	81	SW	1	0.4			10			0	0		
Yankton, D. T.			29.69	754.1	27	2.8	76	N	10	4.5			0		N	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.03	762.7	80	26.7		NE	4	1.8		5	5	E		0.40	10.2		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.97	761.2	72	22.2		SE				8	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.85	758.2	78	25.6	82	E	7	3.1		2	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	75	23.9	84	Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.87	758.7	73	22.8	72	N	8	3.6		0	2		N	0	0		Robert Mason.
St. Georges, Bermudas			30.00	762.0	67	19.4	79	NW	37	16.5		1	1	NW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	64	17.8		NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.90	759.4	58	14.4	81	Calm	0	0		0	2			0.08	2.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.47	773.9	−28	−13.3		W	20	8.9		Haze	0			0.02	0.5		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	66	18.9		S	2	0.9		2	2	S		0	0		C. Partridge.
St. Johns, Newfoundland			29.53	750.0	28	− 2.2	100	N					10			0.025	0.6		John Delaney.
St. Johns, Porto Rico, W. I.			30.10	764.6	75.9	24.4	69	E			3	1	0			0.024	0.60		Leon M. Acuña.
Ellyria, Ohio			29.69	754.1	44	6.7	75	S	12	5.4		0	10			0.10	2.5		H. M. Redington.
Indianola, Iowa	28.86	733.0			33	0.6		E				0	6			0.02	0.5		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 15, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.20	767.0															Charnot.
Algiers			30.10	764.6	59.4	15.2	76	W			4		7			0.831	21.1		Peter.
La Calle			29.86	758.5															Kuntz.
Tunis			29.84	757.8	57.7	14.3	81	NW			4		7			0.169	4.3	Rainy	Jacques.
Sfax			29.87	758.7															Chauvey.
Salda			30.19	766.7	59.2	15.1		WNW			1		3			0	0		Grosjean.
Tebessa			29.87	758.8															Colin.
Gerlville			30.20	767.0	54.0	12.2		N			1		2			0	0		Bernadach.
Laghouat			30.14	765.5	59.0	15.0	34	NW			1		3						Poinsignon.
Biskra			29.98	761.5	69.6	20.9	32	NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.37	771.4	41.5	5.3	48	NE			2		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.53	775.5	32.4	0.2	84	NE			3		0			0	0		I. R. Observatory.
Eperies			30.48	774.1	32.7	0.4	64	N			2		0			0	0		Julius Mikolik.
Gratz			30.38	771.7	38.1	3.4	59	S			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.37	771.5	32.0	0.0	67	NE			3		0			0	0		Prof. Reissenberger.
Kremsmünster			30.19	766.9	42.4	5.8	55	E			7		0			0	0		Prof. C. Wagner.
Lemberg			30.50	774.7	28.4	— 2.0	78	NW			3		10			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.44	773.1	35.6	[illegible]	64	N			3		0			0	0		Habzsuda Daniel.
Pola			30.13	765.2	46.8	8.2	21	E E			6		7			0	0		I. R. Hydrographic Of'ce
Szegedin			30.30	771.8	32.7	0.4	78	E			3		0			0	0		Karl Stancel.
Trieste			30.15	765.9	44.2	6.8	28	ENE			6		0						Prof. V. Farolfi.
Vienna			30.12	772.6	38.7	3.7	52	SE			2		0						I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.91	759.8			42.8	6.0	60	ESE			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.30	769.6	40.2	4.6		SSE	9	4.0			7						William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.26	768.6	42	5.6		ENE			2		6						William McNeil.
Armagh Observatory			30.26	768.6	40.9	4.9		ESE	5	2.2			10						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.21	767.3	44.6	7.0		SE			2		0						The Liverpool Obs.
Birr Castle			30.22	767.6	46.5	8.1		S			1		10						J. Dreyer.
Bradford			30.19	766.8	38.8	3.8		E			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.18	766.6	46.0	7.8		NNE			1		4					Haze	H. Todd.
Cape Town, Cape Colony			30.00	762.0	77	25.0		SE			3		2						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.93	760.2			62.9	17.2	42	S	25	11.2			10						The Royal Observatory.
Cardington			30.09	764.3	45.0	7.2		N					8						John McLaren.
Carlisle			30.24	768.1	43.9	6.6		N					8			0	0		T. Bell.
Chatham			30.14	765.5	47.0	8.3		NE			1		4						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	80.0	26.7		SW			2		5						Sgt. W. F. Hopkins
Dartmoor			30.25	768.3	44.0	6.7		NW			1		10						R. E. Power.
Donaghadee			30.23	767.8	43	6.1		SE			3		7						J. Mac Gowan, Jr.
Dover			30.13	765.3	46	7.2		NE			3		1						J. Costello.
Dublin																			
Durham Observatory			30.23	767.8	39.9	4.4		E					10						G. Goldney.
Eccles, (near Manchester)			30.23	767.8	41.9	5.5		ENE	0	0			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.24	768.1	48.8	9.3		WNW	6	2.7			9						The Falmouth Obs.
Fort Napier, (Natal)			29.79	756.7	75.4	24.1		E			4		9						Pvt. G. Salmon.
Galway			30.13	765.3	51	10.6		S			1		1						Queen's College.
Gibraltar, (Mediterranean)			30.10	764.5	62.6	17.0		WNW			2		0						Sgt. J. Brewster.
Glasgow Observatory			30.25	768.3	39.2	4.0		NE			3		10						The Glasgow Obs.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.19	766.8	46	7.8		ENE			2		2						G. T. Watson.
Greenwich Royal Obs			30.17	766.3	45.7	7.6		N			1		10					Mist	The Royal Observatory.
Guernsey			30.21	767.3	42	5.6		NNW			2		10					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.21	767.3	39.0	3.9		E					10						Moorside Observatory
Halifax, (Nova Scotia)			30.09	764.3	29.0	− 1.7		NW			2		0						Corp'l J. Y. Thompson.
Helston			30.18	766.6	50	10.0		N			3		10						W. B. Moyle.
Holyhead			30.22	767.6	42	5.6		ENE			1		0						John Tilston.
Hull Park																			
Kew Observatory			30.19	766.8	40.5	4.7		N	10	4.5			7					Mist	The Met. Office.
Kingstown			30.23	767.8	45	7.2		SSE			2		10					Fog	George Mitchell.
Lampeter																			
Leicester			30.22	767.6	40.8	4.9		NE			1		9						William J. Harrison
Llandudno																			Dr. James Nicol.
Malta, (Mediterranean)			29.85	758.2	62.4	16.9		NW			1		6						Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.26	768.6	39	3.9		Calm			0		2						William D. Penny.
Nassau, (Bahamas)			30.06	763.5	76.2	24.6		SE			3		5						Surgeon I. Jameson.
North Shields			30.27	768.8	40	4.4		SE			2		7						John Wm. Irvine.
Nottingham			30.23	767.8	41.2	5.1		NE			3		9		NE			Mist	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.22	767.6	38.7	3.7		NNE			2		10					Fog	St. Mary's College.
Oxford, Radcliffe Obs			30.18	766.6	44	6.7		NE			1		9						Radcliffe Observatory.
Plymouth			30.20	767.1	45.5	7.5		S			1		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.19	766.8	46	7.8		W			3		8						W. Kennedy.
Saint Ann's Head			30.22	767.6	44	6.7		S			1		10					Mist	John C. Walker.
St. Helier, Jersey																			
Sandwick Manse, Orkneys			30.29	769.4	40.2	4.6		S	17	7.6			5						Rev. Dr. Clouston.
Scarboro'			30.25	768.3	38.1	3.4		SE			1		10						F. Heard.
Scutari, (Turkey)			30.33	770.4	32.6	0.3		NE			2		10					Snowy	W. H. Lyne.
Sheffield			30.23	767.8	39.6	4.2		NE			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.24	768.1	47.0	8.3		NW			2		2			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.06	763.5	44.8	7.1		ENE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.22	767.6	43.0	6.1		NE			1		3					Haze	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.33	770.4	44	6.7		SE			1		5						John Smith.
Strathfield Turgiss			30.18	766.6	47.2	8.4		NE			1		0						Charles H. Griffith.
Streatley Vicarage			30.20	767.1	43.8	8.6		N			1		6						Rev. John Slatter.
Sumburgh Head, Shetland			30.28	769.1	44	6.7		S			3		8						William Lawrence.
Taunton College																			
Thurso			30.27	768.8	44	6.7		SSE			2		4						John Trotter.
Truro Royal Institution			30.14	765.5	53	11.7		NW			4		4						Royal Institution.
Valencia			30.17	766.3	48.0	8.9		SE	19	8.5			10						Meteorological Obs.
Wick																			
Wisbech																			
Worthing			30.18	766.6	45.1	7.3		NNE			2		10						S. H. Miller.
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.49	774.4	36.5	2.5	80	SSE			2		0						
Fanöe			30.38	771.6	40.6	4.8	62	SE			0		0						
Godthaab, (Greenland)			30.22	767.5	15.4	− 9.2		E			4		2						
Stykkisholm, (Iceland)			30.37	771.4	32.7	0.4	82	NE			4		8						
Thorshavn, (Faröe)			30.28	769.1	40.3	4.6	81	E			3		10					Rain	
Vestervig			30.39	771.8	40.3	4.6	87	ESE			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Ajaccio			29.90	759.4	57.6	14.2	65						5						Normal School.
Alençon			30.15	765.9	51.1	10.6	65	NE			2		8			0	0		Normal School.
Amiens			30.09	764.4	55.4	13.0	85	E			3		0			0	0		Normal School.
Beaumette, (near Angers)			30.14	765.5	57.0	13.9	88	NW	2.7	1.2			10		N	0	0		Beaumette Observatory.
Beauvais			30.13	765.4	50.0	10.0	42	ENE			1		0			0	0		Normal School.
Besançon			30.15	765.8	52.0	11.1	68	N			3		2		S	0	0		Normal School.
Bourges			30.08	764.1	54.3	12.4		W			2		5		W	0	0		Normal School.
Brest			30.16	766.0	48.7	9.3	81	NNW			1		8		NW	0.010	0.25		Naval Observatory.
Caen			30.18	766.5	48.6	9.2	83	NW			2		5		NW	0	0		Normal School.
Carcassonne																			
Chartres			30.09	764.3	52.0	11.1		WNW			1		4		NW	0	0		Normal School.
Chaumont			30.07	763.7	52.0	11.1		SW			2		2		SW	0	0		Normal School.
Le Mans			30.14	765.5	50.7	10.4	70	N			3		5		N	0	0		Normal School.
Mirecourt			30.03	762.7	46.6	8.1		NE			2		0			0	0		Normal School.
Orleans			30.13	765.2	52.5	11.4	69	SE			2		0			0	0		Normal School.
Paris			30.09	763.4	50.9	10.5		S			2		0			0	0	Fog	National Observatory.
Parthenay			30.09	764.3	53.6	12.0	74	E			2		10			0	0		
La Roche sur Yon			30.22	767.5	52.2	11.2	77	W			2		8		E	0	0		Normal School.
Rouen			30.11	764.8	53.4	11.9	50	W			4		2		W	0	0		Normal School.
Saint Lo			30.20	767.0	43.7	6.5	79	E			0		10		N	0	0		Normal School.
Villefranche			30.06	763.6	53.8	12.1	92	ESE			1		2		S	0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Gorée, (Senegambia)			29.85	758.1	72.2	23.3	73	NNE			3		0			0	0		Père Pascall.
Mont-Louis	24.85	631.2			38.1	3.4	78	N	9.4	4.2			8		N	0.004	0.1		—. Falguère.
Montsouris (near Paris)																			Marié Davy.
Perpignan	30.09	761.2			57.0	13.9	52	WNW	13.0	5.8			7		NW	0.035	0.9		Dr. Fines.
Saint Maur, (near Paris)			30.10	764.5	53.6	12.0	38				1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.11	764.8	50.8	13.8	58	NW			1		5		NW	0	0		C. Marquet.
Versailles, (near Paris)			30.11	764.7	54.0	12.2	48	NE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Bamberg			30.13	765.3	43.7	6.5	42	E			2		2			0	0		Prof. Hoh.
Berlin			30.43	773.0	45.9	7.7	43	SE			2		0			0	0		Prof. Arndt.
Breslau			30.52	775.2	36.7	2.6	51	SSE			5		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.15	765.3	44.6	7.0	60	ENE			2		0			0	0		A. Sens.
Cassel			30.18	766.6	49.3	9.6	42	NE			3		0			0	0		Dr. H. Möhl.
Cologne			30.15	765.7	47.7	8.7	57	SE			2		2			0	0		Dr. Garthe.
Emden			30.30	769.6	45.0	7.2	55	E			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.27	768.9	50.0	10.0	47	E			1		0			0	0		Physical Society.
Friedrichshafen			30.18	766.5	35.6	2.0	91	N					10			0	0		M. Wilhelm.
Hamburg			30.30	771.8	47.3	8.5	32	E			4		3			0	0		W. Reinert.
Kiel			30.43	772.8	41.2	5.1	53	E			3		0			0	0		Prof. G. Karsten.
Königsberg			30.56	776.2	36.3	2.4	66	NW			2		2			0	0		Prof. E. Luther.
Köslin			30.76	781.3	38.7	3.7		SE			2		0			0	0		Dr. T gert.
Leipsic			30.33	770.4	43.7	6.5	47	E			4		0			0	0		Prof. Bruhns.
Münster			30.17	766.2	8.6	9.2	47	E			1		0			0	0		Prof. E. Heis.
Posen			30.58	776.8	46.5	2.5	67	E			6–7		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.13	765.2	45.0	7.2	57	NW					0			0	0		Hartwig and Tülk.
Stuttgart			30.13	765.2	44.1	6.7	57	SE					0			0	0		Mr. Würth.
Thorn			30.56	776.1	37.8	3.2	66	ESE			2		0			0	0		Dr. H senbalg.
Treves, (Trier)			30.06	763.6	48.0	8.9	42	N			6		0			0	0		Prof. Plesch.
Wustrow			30.47	773.8	39.0	3.9	71	NE			3		0			0	0		E. F. Schüts.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather	Observer
Moncalieri			30.24	768.2	43.3	6.3	55	NE			2		3	NE		0	0		
Mondovi			30.25	768.3	39.6	4.2	59	W			2		9			0	0		
Genoa			30.09	764.4	51.3	10.7	24	N	8.7	3.9			8	NE		Blank	Blank	Rain	
Pavia			30.23	767.8	43.5	6.4	43	E			2		0			0	0		
Verona			30.17	766.2	51.4	10.8	28	E			8		2			0	0		
Padua			30.18	766.6	47.1	8.4	31	ENE	19.9	8.9			2	NE		0	0		
Parma																			
Bologna			30.26	768.7	42.8	6.0	47	W			6		4	E		0	0		
Livorno			30.15	765.9	39.7	4.3	75	NNW	12.0	5.3			1			0.079	2.0		
Urbino																			
Ancona			30.00	761.9	46.8	8.2	60	SE			2		10			0	0		
Siena			30.02	762.4	45.3	7.4	45	NE	21.0	9.4			7	E		0	0		
Rome			29.88	759.0	56.7	13.7	49	ENE	8.1	3.6			10	NE		0	0		
Naples, O. U.			29.80	759.3	40.0	7.8	61	N			8		10	NE		0.110	2.8	Light rain	
Lecce			29.94	760.5	54.1	12.3	73	SE	12.3	6.4			10			0.126	3.2		
Cosenza			29.80	756.9	54.3	12.4	75	NW			2		10			0.791	20.1	Showery	
Catania, (Sicily)																			
Riposto																			
Palermo			29.74	755.4	55.0	12.8	77	NE			2		10			0.421	10.7		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.16	766.1	43.2	6.2		SE			3								
Groningen			30.18	766.5	41.0	5.0		E			5								
Helder			30.18	766.6	38.7	3.7		E			2								
Utrecht			30.12	765.1	49.6	9.8		ESE			3		0						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.45	773.3	44.2	6.8	63	Calm	0	0			0			0	0		
Christiania			30.45	773.5	28.0	— 2.2	96	WSW	2.7	1.2			10			0	0	Fog	
Tromsö					30.0	— 1.1	94												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.88	758.9			54.7	12.6	70	S	3.8	1.7			10						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.56	776.1	35.4	1.9	71	N	4	2			10						Astronomical Obs.
Wilna			30.46	773.7	35.4	1.9	78	Calm	0	0			2						Astronomical Obs.
Dorpat			30.34	770.5	32.0	0.0	84	WSW	9	4			3						Physical Cabinet.
St. Petersburg			30.15	765.8	33.6	0.9	77	WNW	7	3			0						Central Physical Obs.
Kieff			30.34	770.7	25.5	— 3.6	78	NNW	18	8			2						Physical Cabinet.
Nikolaiev			30.23	767.8	20.5	— 6.4	76	N	31	14			10			Blank	Blank	Snow	
Kertch			30.09	764.4	32.4	0.2	81	W	7.8	3.5			8						Lagorio.
Moscow			30.26	768.6	30.7	— 0.7	81	WSW	10.1	4.5			10						Meteorological Obs.
Lugan			30.00	762.0	27.5	— 2.5	70	SSW	4	2			6						Meteorological Obs.
Archangel			29.91	759.6	32.0	— 0.0	81	SE	7.8	3.5			10						Ogorodnikof.
Tiflis			29.90	759.4	37.8	3.2	73	Calm	0	0			10			Blank	Blank	Snow	Physical Obs.
Astrakhan			29.98	761.6	34.7	1.5	69	ESE	7.8	3.5			10						Sebastianof.
Kasan			30.19	766.9	19.0	— 7.2	75	SW	3.4	1.5			3						Physical Cabinet.
Orenburg			30.49	774.5	19.0	— 7.2	95	E	4	2			0						Tschernischef.
Ekaterinburg			30.21	767.2	20.1	— 6.6	73	SW	10.1	4.5			9			Blank	Blank	Snow	Meteorological Obs.
Kasaly			30.[illegible]8	763.9	29.3	— 1.5	86	E	7.8	3.5			10						Bobrof.
Tashkend			30.73	780.6	17.2	— 8.2	94	Calm	0	0			0						Michelson.
Barnaul			30.58	776.6	6.3	—14.3	74	SW	4	2			0						Meteorological Obs.
Yeniseisk			30.19	766.7	12.6	—10.8	73	SW	13	6			0						Varks.
Irkutsk																			Usolzef.
Oorga			29.87	758.6	32.4	0.2	48	NE	7.8	3.5			10						Mossin.
Peking, (China)			30.31	769.9	48.9	9.4	43	Calm	0	0			3						Physical Observatory.
Nertchinsk			30.23	767.8	26.6	— 3.0	81	Calm	0	0			4						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.15	765.7	52.5	11.4	51	SW	3.8	1.7		4	2	NNE		0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.17	766.3	43.5	6.4	59	NW			4		0			0	0		
Hernosand			30.28	769.0	46.0	7.8	46	W			4		6			0	0		
Stockholm			30.34	770.6	41.7	5.4	55	W			4		0			0	0		
Wisby			30.42	772.6	36.0	2.2	10	WNW			0		0			0	0		Dr. Hildebrandsson.
Upsala—(Sub-Series)			30.35	770.8	39.7	4.3	61	SW			2		0						

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.66	727.9			45.3	7.4	49	NNE			2		3			0	0		The Observatory.
Zurich	28.44	722.4			40.0	4.5	80	NW			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.2mm.; Thermometer, —0°.2 C.; Relative Humidity, —12 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.91	759.7	64.9	18.3	73	S			3		5						
Constantinople			30.32	777.0	30.6	— 0.8	100	N	17.9	8.0			10		N	Blank	Blank	Light snow	
Fao, (Persian Gulf)			30.06	763.5	66.7	19.3		SE			3		10			Blank	Blank		
Salonica			30.23	767.9	43.3	6.3		NW			3		10						
Valona			29.88	758.9	55.0	12.8		SW			1		10						
Varna			30.35	771.0	35.6	2.0		N			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada, as telegraphed daily to the Office of the Chief Signal Officer, U. S. A.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			29.84	757.9	32	0.0		Calm	0	0			10			0.22	5.6		
Cape Roziere, Quebec			30.11	764.8	23	— 5.0	86	NW	17	7.6		0	0			0	0		
Chatham, N. B.			30.15	765.8	10	—12.2	89	W	1	0.4		0	0			0	0		
Charlottetown, P. E. Island			30.09	764.3	23	— 5.0	64	NW	11	4.9		0	0			0	0		
Father Point, Quebec			30.22	767.6	12	—11.1	61	S				0	Haze			0	0		
Fort Garry, Manitoba			30.21	767.3	— 7	—21.7	92	N	18	8.0		Haze	5		N	0	0		
Halifax, N. S.			30.02	762.5	28	— 2.2	81	N	5	2.2		0	0			0	0		
Kingston, Ontario			29.70	754.4	35	1.7	41	E	8	3.6		10	0	E		0	0		
Montreal, Quebec			29.90	759.4	30	— 1.1	97	E	11	4.5			Haze			0.26	6.6		
Ottawa, Ontario			29.84	757.9	33	0.6	75	E	12	4.9			10		E	0.28	7.1	Heavy rain	
Parry Sound, Ontario			29.59	751.6	36	2.2	95	SE	17	7.6			10		SE	0.62	13.2	Light rain	
Port Dover, Ontario			29.56	750.8	39	3.9	91	N	7	3.1		10	0	W		0.33	8.4		
Port Stanley, Ontario			29.54	750.3	42	5.6	90	E			4		10		SW	0.43	10.9		
Quebec, Quebec			30.05	763.3	25	— 3.9	87	E			6		10		E	0	0		
Saugeen, Ontario			29.55	750.6	36	2.2	90	SE	17	7.6			10		W	0	0		
Stayner			29.58	751.3	35	1.7	80	SE	5	2.2			10		SE ?	0	0	Threatening	
Sydney, C. B.			29.86	758.4	34	1.1	75	N	9	4.0		8	2	N	N	0	0		
Toronto, Ontario			29.62	752.3	36	2.2	97	E	9	4.0			10			0.05	1.3		

Note.—The cloudiness is estimated by fourths in the reports telegraphed to the Army Signal Office.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.88	758.9	38	3.3	90	S	10	4.5		10	Fog			0.09	2.3		
Albens, Mich.			29.40	746.7	32	0.0	89	E	12	5.4			10			0.81	20.6		
Atlantic City, N. J.			29.88	758.9	42	5.6	100	SW	7	3.1			10		SW	0.12	3.0		
Augusta, Ga.			29.83	757.7	63	17.2	94	S	8	3.6		5	5	W	N	0.05	1.3		
Baltimore, Md.			29.80	756.9	46	7.8	92	NE	2	0.9			10		NE	0.02	0.5		
Barnegat, N. J.			29.88	758.9	43	6.1	100	SE	4	1.8			10		E	0	0	Light fog	
Benton, Montana			30.12	765.0	−1	−18.3	100	N	8	3.6			10			0.05	1.3		
Bismarck, Dakota			30.06	763.5	−5	−20.6	100	N	21	9.4			10			0.55	14.0	Light snow	
Boston, Mass.			29.98	761.5	36	2.2	100	E	7	3.1			Fog			0.32	8.1	Light rain	
Breckenridge, Minn.			29.83	757.7	8	−13.3	100	N	24	10.7			10			0.10	2.5	Sleet	
Buffalo, N. Y.			29.53	750.1	45	7.2	75	E	8	3.6			10		SW	0.17	4.3		
Burlington, Vt.			29.88	758.9	37	2.8	71	SE	7	3.1			10			0.10	2.5		
Cairo, Ill.			29.36	745.7	55	12.8	86	S	9	4.0			10			0.96	24.4		
Cape Hatteras, N. C.			29.90	759.5	60	15.6	94	SE	14	6.3			10			Blank	Blank	Light rain	
Cape Henry, Va.			29.86	758.4	63	17.2	94	S	10	4.5			10			0.14	3.5	Light rain	
Cape May, N. J.			29.85	758.2	44	6.7	100	S	16	7.2			Fog			0	0	Threatening	
Charleston, S. C.			29.90	759.5	65	18.3	94	SW	16	7.2			10		SW	0	0		
Cheyenne, W. T.			29.71	754.6	9	−12.8	67	W	24	10.7		0	2			0	0		
Chicago, Ill.			29.26	743.2	39	3.9	91	W	1	0.4			Fog			0.06	1.5	Fog	
Cincinnati, Ohio			29.35	745.5	57	13.9	93	SW	3	1.3			10			0.83	21.1	Threatening	
Cleveland, Ohio			29.39	746.5	52	11.1	76	SE	20	8.9			10		S	0.15	3.8	Threatening	
Colorado Springs, Col.			29.76	755.9	12	−11.1	80	W	12	5.4		0	0			0	0		
Corsicana, Texas			30.00	762.0	40	4.4	56	N	22	9.8		0	0			0	0		
Davenport, Iowa			29.29	744.0	36	2.2	100	W	2	0.9			Fog			0	0		
Denver, Col.			29.87	758.7	18	−7.8	84	NW	17	7.6		0	0			0	0		
Detroit, Mich.			29.34	745.2	46	7.8	96	[illegible]	5	2.2			10		W	0.08	2.0	Light rain	
Dodge City, Kansas			29.70	754.4	18	−7.8	84	NW	16	7.2		0	0			0	0		
Dubuque, Iowa			29.31	744.5	34	1.1	90	N	4	1.8			10			0	0		
Duluth, Minn.			29.65	753.1	22	−5.6	100	NE	20	8.9			10			0.04	1.0	Light snow	
Eastport, Me.			30.15	765.8	32	0.0	79	NW	3	1.3		10	0	N		0	0		
Erie, Penn.			29.46	748.3	52	11.1	72	S	28	12.5			10			0.64	16.3	Threatening	
Escanaba, Mich.			29.42	747.3	30	−1.1	89	NE	22	9.8			10			0.09	2.3	Light rain	
Fort Gibson, I. T.			29.84	757.9	33	0.6	61	NW	18	8.0		0	2		N	0.30	7.6		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.14	765.5	−3	−19.4	33	NW	28	12.5			10		NW	0.26	6.6		
Galveston, Texas			29.79	756.7	59	15.0	76	NW	45	20.1			10			0.04	1.0		
Grand Haven, Mich.			29.29	744.0	39	3.9	91	S	8	3.6			Fog			0.06	1.5	Fog	
Indianapolis, Ind.			29.31	744.5	54	12.2	93	S	4	1.8			10			0.98	24.9	Threatening	
Indianola, Texas			29.87	758.7	55	12.8	62	N	52	23.2		5	5	W		0	0		
Jacksonville, Fla.			29.93	761.0	69	20.6	90	SE	8	3.6			10			0	0		
Keokuk, Iowa			29.35	745.5	35	1.7	80	W	8	3.6			10			0	0		
Key West, Fla.			29.97	761.2	76	24.4	76	SE	13	5.8		Haze	Sm'e		W	0	0		
Kittyhawk, N. C.			29.89	759.2	54	12.2	100	SW	16	7.2			10		SW	0.58	14.7		
Knoxville, Tenn.			29.53	750.0	64	17.8	78	S	24	10.7			10		SW	1.75	44.5	Light rain	
La Crosse, Wis.			29.35	745.5	32	0.0	100	N	8	3.6			10			0.06	1.5	Light rain	
Leavenworth, Kan.			29.68	753.9	17	−8.3	83	NW	20	8.9			10		W	0.02	0.5		
Lexington, Ky.			29.43	747.5	58	14.4	76	SE	8	3.6			10		SE	0	0	Light rain	
Long Branch, N. J.			29.90	759.4	38	3.3	100	Calm	0	0			Fog			0.07	1.8	Fog	
Louisville, Ky.			29.35	745.5	57	13.9	87	SE	8	3.6			10		W	1.00	25.4	Threatening	
Lynchburg, Va.			29.77	756.1	52	11.1	93	S	1	0.4			10			0.14	3.5	Light rain	
Malone, N. Y.																			
Marquette, Mich.			29.48	748.8	30	−1.1	89	NE	20	8.9			10			0.07	1.8	Light snow	
Memphis, Tenn.			29.49	749.0	58	14.4	93	W	3	1.3			10		W	0.77	19.6	Light rain	
Milwaukee, Wisconsin			29.30	744.2	33	0.6	100	NW	7	3.1			Fog			0.02	0.5	Fog	
Mobile, Ala.			29.77	756.1	69	20.6	90	S	13	5.8			10			0	0		
Montgomery, Ala.			29.73	755.1	70	21.1	87	S	8	3.6		10	0	S		0	0		
Morgantown, W. Virginia			29.55	750.6	58	14.4	84	S	8	3.6			10			0.07	1.8	Light rain	
Mt. Washington, N. H.			29.91	759.7	32	0.0	100	W	16	7.2			10			0.12	3.0		
Nashville, Tenn.			29.46	748.3	60	15.6	88	SW	4	1.8			10		SW	0.54	64.5	Heavy rain	
New Haven, Conn.			29.94	760.5	39	3.9	91	NE	4	1.8			Fog			0.04	1.0	Light mist	
New London, Conn.			29.96	761.0	40	4.4	95	E	3	1.3			Fog			0.29	7.4	Heavy rain	
New Orleans, La.			29.75	755.6	71	21.7	85	SW	8	3.6			10		SW	0	0		
Newport, R. I.																			
New York, N. Y.			29.91	759.7	36	2.2	90	E	7	3.1			Fog			0	0	Fog	
Norfolk, Va.			29.85	758.2	63	17.2	94	S	10	4.5			10		S	0.08	2.0		
North Platte, Neb.			29.72	754.9	10	−12.2	79	NW	12	5.4		0	0			0	0		
Omaha, Neb.			29.70	754.4	11	−11.7	78	NW	28	12.5			10			Blank	Blank	Heavy snow	
Oswego, N. Y.			29.71	754.6	43	6.1	75	SE	6	2.7			10		SW	0.7	1.8	Threatening	
Peck's Beach			29.86	758.4	41	5.0	100	S	3	1.3			10			0.04	1.0		
Pembina, D. T.																			
Philadelphia, Penn.			29.87	758.7	36	2.2	100	E	8	3.6			Fog			0	0	Fog	
Pike's Peak, C. T.			29.29	744.0	−27	−32.8	100	NW	52	23.2			Fog			0.27	6.9	Fog	
Pittsburgh, Penn.			29.53	750.1	47	8.3	85	Calm	0	0			Sm'e			0.03	0.8		
Port Huron, Mich.			29.37	746.0	46	7.8	92	SE	4	1.8			10		SE	0.02	.5		
Portland, Maine			30.07	763.7	35	1.7	90	E	1	0.4			Fog			0.18	4.6	Light rain	
Portland, Or.			30.33	770.4	46	7.8	91	SW	3	1.3			10			1.11	28.2	Light rain	
Punta Rassa, Fla.			29.98	761.5	72	22.2	87	SE	16	7.2		2	Haze			0	0		
Rochester, N. Y.			29.61	752.1	43	6.1	83	SE	12	5.4			10			0.17	4.3	Light rain	
Salt Lake City, Utah			29.98	761.5	24	−4.4	8	E	4	1.8			10			0.18	4.6		
Sandy Hook, N. J.			29.87	758.7	37	2.8	95	NE	6	2.7			Fog			0	0	Fog	
San Diego, Cal.			30.14	765.5	46	7.8	54	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.13	765.3	50	10.0	89	Calm	0	0		Haze	5			0	0		
Santa Fe, N. M.			29.60	751.8	10	−12.2	58	NW	4	1.8		0	0			0	0		
Savannah, Georgia			29.90	759.4	66	18.9	90	S	8	3.6			10		SW	0.04	1.0		
Shreveport, La.			29.84	757.9	50	10.0	58	W	16	7.2		0	0			0.55	14.0		
Springfield, Mass.			29.94	760.5	38	3.3	90	W	4	1.8			Fog			0.04	1.0	Light rain	
St. Louis, Mo.			29.44	747.8	39	3.9	71	W	16	7.2			10			0.28	7.1		
St. Marks, Fla.			29.88	758.9	68	20.0	97	S	12	5.4			10			0	0		
St. Paul, Minn.			29.45	748.0	19	−7.2	85	N	12	5.4			10			0.17	4.3	Sleet	
St. Paul's Island, Alaska			29.27	743.4	36	2.2	100	SE	5	2.2		0	Fog	SE		0.10	2.5		
Squan Beach, N. J.			29.89	759.2	38	3.3	90	SE	6	2.7			10		SE	0	0		
Toledo, Ohio			29.29	744.0	52	11.1	86	SE	8	3.6			10			0.17	4.3	Light rain	
Tybee Island, Ga.			29.92	760.0	63	17.2	100	S	10	4.5			10		SW	0.08	2.0		
Vicksburg, Miss.			29.66	753.4	68	20.0	84	SW	19	8.5			10			0.05	1.3		
Virginia City, Mon.			29.49	749.0	12	−11.1	79	Calm	0	0			10			0	0		
Washington, D. C.			29.78	756.4	47	8.3	92	NE	4	1.4			Fog			0	0	Threatening	
Wilmington, N. C.			29.90	759.5	65	18.3	94	SW	14	6.2			10		SW	0.66	16.8		
Wood's Hole, Mass.			29.97	761.2	35	1.7	89	E	11	4.9			10			0.02	0.5	Light rain	
Wytheville, Va.			29.40	746.7	58	14.4	74	S	12	5.4		10	0	S		0.69	17.5		
Yankton, D. T.			29.89	759.2	7	−13.9	84	NW	32	14.3			10			Blank	Blank	Heavy snow	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	80	26.7		NE	3	1.3		5	5	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.96	761.0	70	21.1		NE				0	5		NE	0.5	1.3		L. V. Bigard.
Havana, Cuba, W. I.			29.79	756.7	73	22.8	76	E	5	2.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.15	755.8	75	23.9	84	Calm	0	0			10			0	0		James Gall.
St. Thomas, St. T., W. I.																			
Santiago de Cuba, , W. I.			29.79	756.7	73	22.8	67	Calm	0	0		0	2		SW	0	0		Robert Mason.
St. Georges, Bermudas			30.21	767.3	62	16.7	64	E	18	8.0		0	1			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	65	18.3		NE			2	5	0	NE		0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	59	15.0	81	E	15	6.7		0	2		E	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.74	780.8	−31	−35.0		NW	8	3.6		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	62	16.7		SE	3	1.3		5	2	SSE		0	0		C. Partridge.
St. Johns, Newfoundland			29.29	744.0	34	1.1	100	NE					10			0.47	11.9	Light snow.	John Delaney.
St. Johns, Porto Rico, W. I.																0.004	0.10		Leon M. Acuña.
Ellyria, Ohio			29.31	744.5	52	11.1	100	S	8	3.6		0	10			0.25	6.3	Rainy	H. M. Redington.
Indianola, Iowa	28.68	728.5			24	−4.4		NW				0	10			0	0	Snow & blustering	G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4. The Canadian and United States series and sub-series are here given as received daily by telegraph, except in some cases, which have been supplied from the manuscript records.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 16, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERN mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.0															Charnot.
Algiers			30.15	765.9	60.4	15.8	73	NNE			1		10			0	0		Peter.
La Calle			30.15	765.8															Kuntz.
Tunis			30.12	765.1	61.7	16.5	57	N			4		6			0.059	1.5		Jacques.
Sfax			30.09	764.2															Chauvey.
Saïda			30.26	768.5	50.4	10.2		NNE			1		6			0.039	1.0		Grosjean.
Tebessa			30.13	765.3															Colin.
Geriville			30.27	768.9	55.8	13.2		SE			3		2			0	0		Bernadach.
Laghouat			30.16	766.1	59.0	15.0	39	W			2		2			0	0		Poinsignon.
Biskra			30.14	765.5	69.4	20.8	27	N			2		5			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram											0		0			0	0		Prof. Ivan Stozir.
Budn-Pesth			30.42	772.7	40.1	4.5	60	Calm											I. R. Cen. M. I., Hungary
Cracow											1		0			0	0		I. R. Observatory.
Eperies			30.39	771.9	39.0	4.0	68	NE			0		0			0	0		Julius Mikolik.
Gratz			30.37	771.4	35.0	2.0	66	Calm			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.40	772.2	39.0	3.9	54	SW			2		0			0	0		Prof. Reissenberger.
Kremsmünster			30.39	771.8	36.0	2.2	58	NE			2		0			0	0		Prof. C. Wagner.
Lemberg			30.19	766.8	44.0	7.0	55	NE			2		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.37	771.3	33.4	0.8	79	NW			1		0			0	0		Habzsuda Daniel.
Pola			30.42	772.7	39.9	4.4	77	W			2		0			0	0		I. R. Hydrographic Office
Szegedin			30.28	769.0	48.0	8.9	49	WNW			3		4			0	0		Karl Stancel.
Trieste			30.41	772.4	37.4	3.0	69	S			2		0			0	0		Prof. V. Farolfi.
Vienna			30.28	769.1	50.7	10.4	20	ENE			3		0			0	0		I. R. Central Institute.
			30.35	770.9	42.4	5.8	60	SE											

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.98	761.5			43.0	6.1	83	WSW			1		10		W	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.22	767.6	39.0	3.9		N	11	4.9			9			0	0		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.22	767.6	43	6.1		WNW			2		4						William McNeil.
Armagh Observatory			30.26	768.6	40.3	4.6		NNE	5	2.2			10					Fog	Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.21	767.3	42.2	5.7		WNW			1		10					Mist	John Hartnup.
Birr Castle			30.22	767.6	46.5	8.1		Calm			0		10					Rain	J. Dreyer.
Bradford			30.14	765.5	43.1	6.2		W			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			
Bywell																			
Cambridge Observatory			30.22	767.6	41.0	5.0		N			1		4						H. Todd.
Cape Town, Cape Colony			29.76	755.5	80	26.7		NW			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.78	756 4			66.9	19.4	46	SW	4	1.8			0						The Royal Observatory.
Cardington			30.22	767.6	43.0	6.1		N					9						John McLaren.
Carlisle			30.21	767.3	42.1	5.6		NW					6			0	0		T. Bell.
Chatham			30.19	766.8	38.7	3.7		NE			1		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.92	760.0	81.5	27.5		SE			2		6						Sgt. W. F. Hopkins
Dartmoor			30.28	769.1	47.2	8.4		W			1		6						R. E. Power.
Donaghadee			30.23	767.8	45	7.0		S			1		10						J. Mac Gowan, Jr.
Dover			30.21	767.3	37	2.8		NW			2		9						J. Costello.
Dublin																			
Durham Observatory			30.17	766.3	39.8	4.4		NE					10						G. Goldney.
Eccles, (near Manchester)			30.25	768.3	39.0	3.9		E	0	0			10					Fog	Thomas Mackereth.
Falmouth Observatory			30.24	768.1	46.8	8.3		SSE	6	2.7			10					Fog	The Falmouth Obs.
Fort Napier, (Natal)			29.81	757.2	79.6	26.4		NE			3		6						Pvt. G. Salmon.
Galway			30.16	766 1	50	10.0		SE			1		10					Rain	Bernard G. Clare.
Gibraltar, (Mediterranean)			30.10	764.5	59.0	15.0		ENE			4		4						Sgt. J. Brewster.
Glasgow Observatory			30.20	767.1	40.0	4.4		E			1		9					Fog	The Glasgow Obs.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.18	766.6	38	3.3		NW			1		8					Mist	G. T. Watson.
Greenwich Royal Obs			30.22	767.6	38.8	3.8													The Royal Observatory.
Guernsey			30.24	768.1	48	8.9		NW			1		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.17	766.3	41.2	5.1		NW					10						Moorside Observatory.
Halifax, (Nova Scotia)			29.93	760.2	3 .8	— 0.7		E			2		10					Rain	Corp'l J. Y. Thompson.
Helston			30.22	767.6	50	10.0		E			2		10					Mist	W. B. Moyle.
Holyhead			30.20	767.1	45	7.2		SSW			2		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	39.6	4.2		NW	5	2.2			10					Mist	The Met. Office.
Kingstown			30.25	768.3	44	6.7		ENE			1		10					Fog	George Mitchell.
Lampeter																			
Leicester			30.19	766.8	41.6	5.3		SW			1		0					Mist	William J. Harrison
Llandudno			30.22	767.6	45.4	7.4		WSW					10						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	61.0	16.1		NE			1		2						Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.23	767.8	44.0	6.7		Calm			0		10						William D. Penny.
Nassau, (Bahamas)			30.03	762.7	73.2	22.9		SE			1		4						Surg. Maj. I. Jameson.
North Shields			30.21	767.3	40	4.4		N			3		8						John Wm. Irvine.
Nottingham			30.21	767.3	4 .6	7.0		N			2		9k		WNW			Fog	E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.20	767.1	48.0	8.9		NW			3		7					Mist	Stephen Whitty.
Oxford, Radcliffe Obs			30.18	766.6	44	6.7		WSW			1		10						J. W. Lucas.
Plymouth			30.24	768.1	49	9.4		S			2		7					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.19	766.8	48	8.9		S			3		10					Rain	W. Kennedy.
Saint Ann's Head			30.25	768.3	43	6.1		SE			1		7					Mist	John C. Walker.
St. Helier, Jersey			30.26	768.6	51	11.1		NNW			1		8						A. P. Aury.
Sandwick Manse, Orkneys			30.24	768.1	41.1	5.1		SSE	8	3.6			10						Rev. Dr. Clouston.
Scarboro'			30.19	766.8	40.2	4.6		N			1		10					Fog	F. Heard.
Scutari, (Turkey)			30.32	767.6	35.0	1.7		NNE			3		10						W. H. Lyne.
Sheffield			30.21	767.3	43.0	6.1		NNW			1		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.19	766.8	46.9	8.3		W			1		2			0	0	Mist	Francis Redford.
Somerleyton, (Lowestoft)			30.07	763.8	39.2	4.8		WNW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.20	767.1	41.3	5.2		SW			1		10						Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.24	768.1	48	8.9		WNW			1		7						John Smith.
Strathfield Turgiss			30.21	767.3	41.8	5.4		N			1		0						Charles H. Griffith.
Streatley Vicarage			30.26	768.6	45	7.2		NNW			1		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.28	769.1	41	5.0		NE			4		10						William Lawrence.
Taunton College																			
Thurso			30.23	767.8	42	5.6		Calm			0		7						John Trotter.
Truro, Royal Institution			30.19	766.8	48	8.9		E			2		10					Rain	Royal Institution.
Valencia			30.17	766.3	59.0	10.0		WSW	2	0.9			10					Rain	Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.23	767.8	40.8	4.9		N			2		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.10	764.5	36.3	2.4	74	S			4		0						
Fanöe			30.09	764.2	36.3	2.4	79	WSW			2		1						
Godthaab, (Greenland)			30.32	770.2	7.3	—13.7		Calm			0		2					Mist	
Stykkisholm, (Iceland)			30.64	778.2	32.0	0.0	92	E			4		8						
Thorshavn, (Faröe)			30.52	775.2	35.2	1.8	75	NE			6		8					Rain	
Vestervig			30.08	764.1	39.6	4.2	97	N			2		6						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.6	56.8	13.8	71						10						Normal School.
Alençon			30.25	768.5	48.9	9.4	67	N			1		8			0	0		Normal School.
Amiens			30.17	766.2	48.2	9.0	73	W			3		10m			0.094	2.4		Normal School.
Beaumette, (near Angers)			30.24	768.2	49.3	9.6	61	N	2.0	0.9			10		N	0	0		Beaumette Observatory.
Beauvais			30.23	767.7	48.7	9.3	56	WNW			2		8		WNW	0	0		Normal School.
Besançon			30.24	768.1	51.3	10.7	68	SW			2		2		SW	0.039	1.0		Normal School.
Bourges			30.28	769.1	48.2	9.0		W			2		10		W	0	0		Normal School.
Brest			30.18	766.6	49.5	9.7	86	SE			1		10			0.010	0.25	Fog	Naval Observatory.
Caen			30.25	768.4	47.0	8.0	80	NW			0		8		NW	0	0		Normal School.
Carcassonne																			
Chartres			30.24	768.1	44.1	6.7		NW			2		10			0	0		Normal School.
Chaumont			30.20	767.1	50.2	10.1		W			2		5		W	0	0		Normal School.
Le Mans			30.27	768.8	47.3	8.5	70	NW			2		8		W	0	0		Normal School.
Mirecourt			30.11	764.7	51.1	10.6		SW			2		5		NE	0	0		Normal School.
Orleans			30.26	768.6	42.4	5.8	82	NW			2		10		N	0	0		Normal School.
Paris			30.23	767.8	46.0	8.3		W			1		10			0	0	Fog	National Observatory.
Parthenay			30.26	768.6	54.5	12.5	61	NW			2		10		SE	0	0		
La Roche sur Yon			30.28	769.0	49.3	9.6	66	NW			2		8		SE	0	0		Normal School.
Rouen			30.20	767.0	46.6	8.1	75	W			2		10			0	0		Normal School.
Saint Lo			30.24	768.2	48.4	9.1	78	N			3		5		N	0	0		Normal School.
Villefranche			30.18	766.6	52.0	11.1	76	NE			1		10			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)					36.9	3.7	76	NNW	7.4	3.3			7		SW	0.087	2.2		Père Pascall.
Mont-Louis	24.94	633.5			36.0	3.7	76	NNW	7.4	3.3			7		SW	0.087	2.2		—. Falguère.
Montsouris (near Paris)			30.09	767.4	47.1	8.4	64	W	2.9	1.33			10kn			0	0		Marié Davy.
Perpignan	30.10	764.6			56.8	13.8	57	WNW	7.4	3.3			7		WNW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.22	767.6	46.2	7.9	68	SW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.31	768.8	46.7	8.7	82	NW			1		5		WNW	0	0		C. Marquet.
Versailles, (near Paris)			30.22	767.5	45.7	7.6	66	NW			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.13	765.2	45.5	7.5	58	SE			1		2			0	0		Prof. Hoh.
Berlin			30.21	767.3	50.2	10.1	38	S			3		0			0	0		Prof. Arndt.
Breslau			30.32	770.0	42.4	5.8	59	SE			4		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.18	766.5	51.4	10.8	63	SW			1		0			0	0		A. Senz.
Cassel			29.95	760.7	51.6	10.9	46	S			2		0			0	0		Dr. H. Möhl.
Cologne			30.18	766.5	47.3	8.5	62	SSE			3		0			0	0		Dr. Garthe.
Emden			30.19	766.9	48.2	9.0	55	Calm			0		0			0	0		Prof. Prestel.
Frankfort on the Main			30.26	768.7	49.1	9.5	52	N			1		1			0	0		Physical Society.
Friedrichshafen			30.26	768.5	38.3	3.5	92	W					10			0	0	Fog	M. Wilhelm.
Hamburg			30.15	765.7	53.7	11.8	43	WSW			3		3			0	0		W. Reinert.
Kiel			30.18	766.5	48.2	9.0	60	SW			2		0			0	0		Prof. G. Karsten.
Königsberg			30.28	769.0	43.7	6.5	57	W			2		0			0	0		Prof. E. Luther.
Köslin			30.43	773.0	45.5	7.5		S			1		0			0	0		Dr. T gert.
Leipsic			30.20	767.0	47.5	8.6	50	SSE			2		0			0	0		Prof. Bruhns.
Münster			30.14	765.5	52.2	11.2	53	W			1		0			0	0		Prof. E. Heis.
Posen			30.31	769.8	45.9	7.7	32	S			5		0			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.18	766.5	53.1	11.7	57	NW					2			0	0		Hartwig and Tülk.
Stuttgart			30.18	766.6	51.4	10.8	55	E					0			0	0	Rain & snow	Mr. Würth.
Thorn			30.29	769.3	44.4	6.9	55	SSE			4		0			0	0		Dr. Rosenbalg.
Treves, (Trier)			30.10	764.6	52.7	11.5	52	W			6		1			0	0		Prof. Flesch.
Wustrow			30.14	765.5	39.2	4.0	92	ENE			2		0			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.34	770.7	43.7	6.5	58	NW			2		1			0	0		
Mondovi			30.35	770.8	45.6	4.8	42	NW			2		0			0	0		
Genoa			30.18	766.6	52.9	11.6	29	NW	9.4	4.2			0			0	0		
Pavia			30.32	770.2	47.3	8.5	35	ENE			2		0			0	0		
Verona			30.29	769.4	53.6	12.0	24	E			2		0			0	0		
Padua			30.28	769.1	49.3	9.6	27	N	6.3	2.8			0			0	0		
Parma																			
Bologna			30.38	771.6	41.4	5.2	38	W			6		2	W		0	0		
Livorno			30.21	767.2	52.0	11.1	25	ENE	15.0	6.7			1			0	0		
Urbino																			
Ancona			30.31	769.9	46.0	7.8	75	NW			2		0			0	0		
Siena			30.19	766.8	48.2	9.0	30	ENE	9.4	4.2			0			0	0		
Rome			30.16	766.1	58.3	14.6	44	WSW	3.1	1.4			3	W		0	0		
Naples, O.U.			30.18	766.6	38.8	3.8	33	NE			6		4			0	0		
Lecce			30.17	766.4	51.8	11.0	63	SE	8.1	3.6			6			0.551	14.0		
Cosenza			30.18	766.6	51.6	10.9	42	NNW			8		7	NW		0	0		
Catania, (Sicily)																			
Liposto																			
Palermo			29.98	761.5	57.7	14.3	69	ENE			4		7			0.024	0.6		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.23	767.7	38.8	3.8		NW			2								
Groningen			30.14	765.5	45.3	7.4		W			2								
Helder			30.13	765.2	39.0	3.9		WNW			2								
Utrecht			30.09	764.3	49.8	9.9		SW			2		5						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.17	766.3	41.0	5.0	54	NNW	9.8	4.4			5			0	0		
Christiania			30.14	765.5	28.8	— 1.8	84	E	4.3	1.9			3			0	0		
Tromsö					18.7	— 7.4	92												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.87	758.8			58.5	14.7	49	NE	15.0	6.7			1						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.34	770.7	40.5	4.7	68	NE	4	2			0						Astronomical Obs.
Wilna			30.31	769.8	33.1	0.6	90	Calm	0	0			3						Astronomical Obs.
Dorpat			30.15	765.8	30.9	— 0.6	81	W	9	4			0						Physical Cabinet.
St. Petersburg			30.02	762.4	32.0	0.0	92	WNW	7	3			0						Central Physical Obs.
Kieff			30.27	768.9	35.6	2.[illegible]	65	NW	7	3			8						Physical Cabinet.
Nikolaiev			30.33	770.4	28.8	— 1.8	82	SW	4	2			10						
Kertch			30.20	767.0	25.2	— 3.8	82	NW	13	6			4						Lagorio.
Moscow			30.08	764.1	37.2	2.9	51	W	7.8	3.5			0						Meteorological Obs.
Lugan			30.01	762.2	30.9	— 0.6	81	N	4	2			10						Meteorological Obs.
Archangel			29.80	756.9	21.9	— 5.6	75	WNW	20	9			0						Ogorodnikof.
Tiflis			30.13	765.3	41.9	5.5	24	NNW	7.8	3.5			5						Physical Obs.
Astrakhan			30.05	763.3	33.8	1.0	48	SW	13	6			0						Sebastianof.
Kasan			29.93	760.3	22.3	— 5.4	90	SW	7.8	3.5			10						Physical Cabinet.
Orenburg			30.10	764.6	20.3	— 6.5	90	SE	4	2			10			Blank	Blank	Snow	Tschernischef.
Ekaterinburg			30.02	762.4	26.1	— 3.5	65	SW	16.8	7.5			1						Meteorological Obs.
Kasaly			30.08	764.0	34.0	1.1	87	Calm	0	0			10						Bobrof.
Tashkend			30.21	767.2	53.6	12.0	53	Calm	0	0			0						Michelson.
Barnaul			30.39	771.8	8.8	—12.9	76	Calm	0	0			1						Meteorological Obs.
Yeniseisk			30.04	763.0	21.4	— 5.9	70	S	13	6			10						Marks.
Irkutsk																			Usolzef.
Oorga			30.29	769.4	18.7	— 7.4	70	N	7.8	3.5			0						Mossin.
Peking, (China)			30.32	771.0	40.5	4.7	59	S-E	7.8	3.5			1						Physical Observatory
Nertchinsk			30.15	765.8	14.0	—10.0	74	Calm	0	0			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.23	767.8	53.4	11.9	51	N	10.5	4.7		0	5			0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.02	762.5	32.7	0.4	85	NW			2		9			0	0		
Hernosand			30.01	762.2	39.6	4.2	55	NW			2		10			0	0		
Stockholm			30.05	763.2	37.0	2.8	59	W			4		0			0	0		
Wisby			30.18	766.5	36.3	2.4	93	SW			2		0			0	0		
Upsala—(Sub-Series)			30.06	763.6	36.7	2.6	55	Calm			0		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.75	730.3			53.6	12.1	68	W			2		2			0	0		The Observatory.
Zurich	28.53	724.7			41.9	5.5	80	W			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.7mm.; Thermometer, +4°.3 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.91	759.6	63.3	17.4	81	NW			2		5						
Constantinople			30.31	769.9	34.2	1.2	100	N	20	9.0			10		NE	0.181	4.6		
Fao, (Persian Gulf)			30.02	762.4	66.2	19.0		NE			3		10						
Salonica			30.28	769.0	53.6	12.0		NW			1		2						
Valona			30.11	764.8	52.3	11.3		W			1		2						
Varna			30.35	771.0	33.8	1.0		NW			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			29.68	753.9	35	1.7		SW	5	2.2			8		SW	0.34	8.6		
Cape Roziere, Quebec			30.09	764.3	29	− 1.7	88	Calm	0	0		0	0			0	0		
Chatham, N. B.			30.01	762.2	26	− 3.3	87	E	5	2.2			Haze			0	0		
Charlottetown, P. E. Island			30.03	762.7	22	− 5.6	94	NE	2	0.9			10			0	0		
Father Point, Quebec			29.87	758.7	12	−11.1	80	NE	12	5.4			Haze			0.01	0.3	Light snow.	
Fort Garry, Manitoba			30.21	767.3	− 6	−21.1	96	N	25	11.2			10			0	0		
Halifax, N. S.			29.89	759.2	30	− 1.1	95	SE	3	1.3			10			0	0	Threatening	
Kingston, Ontario			29.65	753.1	36	2.2	95	W	4	1.8		5	2	SW		0.24	6.1		
Montreal, Quebec			29.61	752.1	38	3.3	75	W	19	8.5		Haze	5			0.80	20.3		
Ottawa, Ontario			29.50	749.3	53	11.7	73	S	10	4.5		2	0	SW		0.27	6.9		
Parry Sound, Ontario			29.45	748.0	26	− 3.3	88	SW	28	12.5			10		SW	Blank	Blank	Heavy snow	
Port Dover, Ontario			29.57	751.1	31	− 0.6	79	SW	27	12.1		8	0	SW		0.68	17.3		
Port Stanley, Ontario			29.55	750.6	30	− 1.1	84	SW	39	17.4			10		SW	0.41	10.4		
Quebec, Quebec			29.71	754.6	32	0.0	100	E			4		10		E	0.11	2.8	Sleet	
Saugeen, Ontario			29.41	747.0	26	− 3.3	94	SW	18	8.0			10		NE	Blank	Blank	Light snow.	
Stayner			29.44	747.8	29	− 1.7	72	S	9	4.0		5	0	W		0.11	2.8		
Sydney, C. B.			30.01	762.2	28	− 2.2	80	NE	6	2.7		10	0			0	0		
Toronto, Ontario			29.54	750.3	33	0.6	69	SW	17	7.6		5	2	SW	SW	0.66	16.8		

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors.		Barometer. Reduced to sea-level.		Temperature of the Air.		Relative Humidity.	Wind. Direction.	Wind. Velocity.		Wind. Force.	Clouds. Amount. Up'er.	Clouds. Amount. Low'r.	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rain-fall in 24 hours.		Weather.	Observer.
	Inches.	Millimeters.	Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	0—10.	0—10.	0—10.	From—	From—	Inches.	Millimeters.		
Albany, N. Y.			29.63	752.6	39	3.9	91	Calm	0	0		2k	5s	S		0.50	12.7	Clearing	
Alpena, Mich.			29.27	743.4	20	−6.7	85	SW	20	8.9			10ks			0.35	8.9		
Atlantic City, N. J.			29.68	753.9	49	9.4	93	NW	7	3.1			10s			0.14	3.5		
Augusta, Ga.			29.88	758.9	52	11.1	53	NW	8	3.6			10s			1.29	32.8		
Baltimore, Md.			29.68	753.9	50	10.0	52	NW	3	1.3			10s		W	0.01	0.3		
Barnegat, N. J.			29.62	752.3	39	3.9	91	S	1	0.4			Fog			0.57	14.5	Fog.	
Benton, Montana			30.30	769.4	−16	−26.7	100	Calm	0	0		0	0			0.03	0.8		
Bismarck, Dakota			30.38	771.6	−9	−22.8	56	N	28	12.5		0	5s			0.20	5.1	Clearing	
Boston, Mass			29.68	753.9	37	2.8	90	NE	6	2.7			10s			1.06	26.9		
Breckenridge, Minn.			29.88	758.9	−2	−18.9	100	NW	36	16.1			10n			0.60	15.2	Light snow	
Buffalo, N. Y.			29.56	750.8	32.5	0.3	60	SW	25	11.2		0	8ks			0.55	14.0		
Burlington, Vt.			29.65	753.1	38	3.3	72	E	4	1.8			10s			0.14	3.5		
Cairo, Ill.			29.98	761.5	35	1.7	44	N	12	5.4		0	0			0.01	0.3		
Cape Hatteras, N. C.			29.73	755.1	64	17.8	89	SW	30	13.4			10n			2.50	63.5	Light rain	
Cape Henry, Va.			29.67	753.6	63	17.2	78	[illegible]	4	1.8		5k	5s	SW	SW	0.49	12.4		
Cape May, N. J.			29.69	754.1	48	8.9	77	N	16	7.2			10s		W	0.06	1.5		
Charleston, S. C.			29.82	757.4	63	17.2	100	SW	8	3.6			10n			1.07	27.2	Light rain	
Cheyenne, W. T.			29.93	760.2	−2	−18.9	84	NW	8	3.6		5c	5s			0	0		
Chicago, Ill.			29.55	750.6	14	−10.0	82	SW	26	11.6		Haze	2s	“		0.30	7.6		
Cincinnati, Ohio			29.74	755.4	37	2.8	45	SW	16	7.2		5k	0	SW		0.06	1.5		
Cleveland, Ohio			29.54	750.3	33	1.1	60	S	36	11.6		5k	0	SW		0.20	5.1		
Colorado Springs, Col.			29.91	759.7	14	−10.0	82	N	4	1.8			10s			0	0		
Corsicana, Texas			30.18	766.7	36	2.2	53	W	6	2.7		0	0			0	0		
Davenport, Iowa			29.64	752.8	10	−12.2	88	W	18	8.0			10n			0.05	1.3	Light snow	
Denver, Col.			30.07	763.8	14	−10.0	82	NE	4	1.8			10n			0.01	0.3	Light snow	
Detroit, Mich.			29.43	747.5	27	−2.8	77	SW	23	10.3		2ck	1cs	N		0.45	11.4		
Dodge City, Kansas			29.98	761.2	20	−6.7	70	N	20	8.9		5k	0	N		0	0		
Dubuque, Iowa			29.51	749.5	8	−13.3	78	NW	20	8.9			1's			0.26	6.6		
Duluth, Minn.			29.37	746.0	5	−15.0	75	NW	24	10.7			10s			1.00	25.4		
Eastport, Me.			29.79	756.7	31	−0.6	100	NE	16	7.2			10n			0.02	0.5	Light rain	
Erie, Penn.			29.55	750.6	35	1.7	52	S	30	13.4		0	2ks			0.25	6.3		
Escanaba, Mich.			29.09	738.8	14	−10.0	91	SW	22	9.8			10n			1.14	28.9	Light snow	
Fort Gibson, I. T.			30.14	765.3	29	−1.7	78	Calm	0	0		2cs	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.40	772.1	−4	−20.0	65	NW	32	14.3		0	5s		NW	0	0		
Galveston, Texas			30.16	766.1	49	9.4	37	NE	20	8.9		0	0			0	0		
Grand Haven, Mich.			29.41	747.0	19	−7.2	84	SW	86	16.1			10n			0.10	2.5	Light snow	
Indianapolis, Ind.			29.69	753.9	31	−0.6	68	W	16	7.2			10s		W	0.01	0.3		
Indianola, Texas			30.15	765.8	49	9.4	50	NE	24	10.7		5cs	0	W		0	0		
Jacksonville, Fla.			29.84	757.9	71	21.7	90	SW	10	4.5			8s			0.06	1.5	Threatening	
Keokuk, Iowa			29.76	755.9	13	−10.6	62	W	20	8.9		0	5s			0.03	0.8		
Key West, Fla.			29.98	761.5	76.9	25.0	73	SW	8	3.6		2k	Sm'e	S		0	0		
Kittyhawk, N. C.			29.71	754.6	63	17.2	94	W	12	5.4			10ks		W	0.20	5.1		
Knoxville, Tenn.			29.96	761.0	35	1.7	61	SW	8	3.6		0	0			1.56	39.6		
La Crosse, Wis.			29.37	746.0	12	−11.1	100	N	9	4.0			10n			0.59	15.0	Light snow	
Leavenworth, Kan.			30.08	764.0	12	−11.1	79	NW	18	8.0		0	0			0.01	0.3		
Lexington, Ky.			29.83	757.7	37	2.8	48	SW	22	6.8		0	0			0.19	4.8		
Long Branch, N. J.			29.69	754.1	40	4.4	100	NW	4	1.8			Fog			0.15	3.8	Fog	
Louisville, Ky.			29.82	757.4	35	1.7	70	S	11	4.9		0	0			0.22	5.6		
Lynchburg, Va.			29.72	754.9	49	9.4	44	W	8	3.6		10k	0	W		0.13	3.3		
Malone, N. Y.																			
Marquette, Mich.			28.88	733.5	10	−12.2	79	S	16	7.2			10n			0.10	2.5	Light snow	
Memphis, Tenn.			30. 9	764.3	38	3.3	55	W	8	3.6		0	0			0	0		
Milwaukee, Wisconsin			29.42	747.3	9	−12.8	89	W	32	14.3			8ks			0.37	9.4		
Mobile, Ala.			30.07	763.8	47	8.3	34	N	13	5.8		2c	0	NW		0.12	3.0		
Montgomery, Ala.			30.06	763.5	44	6.7	64	N	5	2.2		0	0			0.11	2.8		
Morgantown, W. Virginia			29.74	755.4	38	3.3	46	SW	19	8.5		0	0			0.14	3.5		
Mt. Washington, N. H.			29.82	757.4	35	1.7	100	NW	10	4.5			Fog			0.08	2.0		
Nashville, Tenn.			29.08	761.5	39	3.9	55	W	8	3.6		0	0			0.51	13.0		
New Haven, Conn.			29.67	753.6	37	2.8	90	NE	12	5.4			10s		NE	0.83	21.1		
New London, Conn.			29.67	753.6	38	3.3	90	N	5	2.2			10s		N	0.82	20.8		
New Orleans, La.			30.10	764.5	51	10.6	34	N	16	7.2		2c	0	W		0.07	1.8		
Newport, R. I.																			
New York, N. Y.			29.70	755.4	37	2.8	100	E	7	3.1			Fog			0.20	5.1	Fog	
Norfolk, Va.			29.67	753.6	61	16.1	88	S	8	3.6		5k	2s	S		0.10	2.5		
North Platte, Neb.			30.03	762.7	6	−14.4	76	NW	24	10.7		0	0			0	0		
Omaha, Neb.			30.01	762.2	6	−14.4	88	NW	9	13.0			10s			0.03	0.8		
Oswego, N. Y.			29.61	752.1	41.4	5.2	69	SSE	5	2.2			10cs			0.29	7.4		
Peck's Beach			29.69	754.1	51	10.6	86	N	12	5.4			10s			0.15	3.8		
Pembina, D. T.			30.15	765.8	−7	−21.7	80	NW	36	16.1			10s			0	0		
Philadelphia, Penn.			29.71	754.6	45	7.2	84	N	7	3.1			10s			0.21	5.3		
Pike's Peak, C. T.			29.48	748.8	−19	−28.3	100	NW	30	13.4			Fog			0	0	Fog	
Pittsburgh, Penn.			29.68	753.9	35	1.7	61	S	8	3.6		0	0			0.17	4.3		
Port Huron, Mich.			29.42	747.3	27	−2.8	88	SW	24	10.7			10n			0.22	5.6	Light snow	
Portland, Maine			29.69	754.1	35	1.7	90	NE	10	4.5			10s			0.73	18.5		
Portland, Or.			30.23	767.8	44	6.7	92	SW	12	5.4			10n			0.23	5.8	Light rain	
Punta Rassa, Fla.			29.97	761.2	75.9	24.4	90	S	12	5.4		Haze	0			0	0		
Rochester, N. Y.			29.59	751.6	36	2.2	70	W	8	3.6		5k	0	W		0.77	19.6		
Salt Lake City, Utah			30.08	764.0	31	−0.6	79	Calm	0	0			10n			0.38	9.7	Light snow	
Sandy Hook, N. J.			29.67	753.6	38	3.3	100	[illegible]	4	1.8			Fog			0.13	3.3	Fog	
San Diego, Cal.			30.13	765.3	46	7.8	67	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.24	768.1	47	8.3	77	W	4	1.8		0	0			0	0		
Santa Fe, N. M.			29.70	754.4	20	−6.7	56	NW	4	1.8		0	0			0	0		
Savannah, Georgia			29.84	757.9	56	13.3	87	NW	16	7.2			10n			1.27	32.3	Light rain	
Shreveport, La.			30.17	766.3	37	2.8	71	Calm	0	0		2c	0	W		0	0		
Springfield, Mass.			29.67	753.6	36	2.2	90	[illegible]	4	1.8			10n			0.48	12.2	Light rain	
St. Louis, Mo.			29.89	759.2	28	−2.2	67	W	24	10.7		0	2s			0.05	1.3		
St. Marks, Fla.			29.93	760.2	50	10.0	93	N	22	9.8			10s			0.07	1.8		
St. Paul, Minn.			29.40	746.7	3	−16.1	100	NW	20	8.9			10n			0.59	15.0	Light snow	
St. Paul's Island, Alaska			29.47	748.5	29	−1.7	88	WSW	14	6.2		8c	k	SSW		0.03	0.8		
Squan Beach, N. J.			29.70	754.4	39	3.9	91	NW	1	0.4			Fog			0.30	7.6	Fog	
Toledo, Ohio			29.44	747.8	31	−0.6	79	SW	24	10.7			10n			0.51	13.0	Light snow	
Tybee Island, Ga.			29.88	758.9	54	12.2	93	NW	24	10.7			10n		SW	2.11	53.6	Light rain	
Vicksburg, Miss.			30.19	766.8	43	6.1	60	Calm	0	0		0	0			0	0		
Virginia City, Mon.			29.69	754.1	5	−15.0	87	Calm	0	0			10s			0	0		
Washington, D. C.			29.69	754.1	48.5	8.9	51	N	8	3.6		1k	8s	SW	SW	0.02	0.5		
Wilmington, N. C.			29.78	756.4	61	16.1	94	SW	16	7.2			10n			0.39	9.9	Light rain	
Wood's Hole, Mass.			29.66	753.4	37	2.8	100	NW	5	2.2			Fog			0.99	9.4	Fog	
Wytheville, Va.			29.50	749.3	35	1.7	61	NW	8	3.6		0	0			0.37	14.0		
Yankton, D. T.			30.08	764.0	3	−16.1	86	NW	45	20.1			10n		NW	0.90	22.9	Light snow	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	80	36.7		E	5	2.2		2k	2ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.97	761.2	74	23.3		E				5c	0	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.97	756.1	81	27.2	76	S	3.6	1.8		1k	c	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	78	25.6		SE	8	3.6		1k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.17	766.3			75	23.9		E	9	4.0		0	1k			0	0		
Santiago de Cuba, , W. I.			29.83	757.7	74	23.3	76	Calm	0	0		0	2ks		WSW	0	0		Robert Mason.
St. Georges, Bermudas			30.12	765.0	67	19.4	74	SW	39	17.4		8c	2k	WNW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	71	21.7		NE			3					1.13	28.7		E. P. Church.
Makawao, Maui, S. I.			29.92	760.0	62	16.7	83	SE	8.4	3.8		0	8ks			0.44	11.2	Rainy	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.57	776.5	—30	—34.4		N	6	2.7		Haze	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	62	16.7		SE	3	1.3		1c	0	SE		0	0		C. Partridge.
St. Johns, Newfoundland			29.66	753.4	34	1.1	100	NE					10n			0	0	Light rain	John Delaney.
St. Johns, Porto Rico, W. I.			30.07	763.8	72.5	22.5	79	E			1	4ck	0			0.043	1.10		Leon M. Acuña.
Ellyria, Ohio			29.50	749.3	33	0.6	52	SW	20	8.9		0	4k			0.13	3.3		H. M. Redington.
Indianola, Iowa	28.99	736.3			0	—14.4		NW			6		10n			0.05	1.3		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —10° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 17, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0															Charnot.
Algiers			30.00	762.1	57.6	14.2	84	N			2		8			0	0		Peter.
La Calle			30.02	762.4															Kuntz.
Tunis			30.03	762.7	64.0	17.8	56	WSW			3		6			0	0		Jacques.
Sfax			30.06	763.4															Chauvey.
Saida			30.09	764.4	64.6	18.1		N			1		6			0.079	2.0	Rain	Grosjean.
Tebessa			30.03	762.7															Colin.
Gerlville			30.12	765.0	57.6	14.2		SE			2		3			0	0		Bernadach.
Laghouat			30.06	763.5	59.9	15.5	39	SE			2		1						Poinsignon.
Biskra			30.06	763.6	70.0	21.1	37	E			2		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.14	765.5	42.3	5.7	57	SW			1		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.03	762.8	43.7	6.5	57	WSW			3		0			0	0		I. R. Observatory.
Eperies			30.10	764.5	33.	0.8	85	SE			3		10			0	0		Julius Mikolik.
Gratz			30.11	764.7	41.0	5.0	61	S			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.15	765.7	39.0	3.9	58	NE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			30.03	762.7	47.8	8.8	55	E			1		0			0	0		Prof. C. Wagner.
Lemberg			29.97	761.3	41.5	5.3	73	SW			2		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.21	767.3	37.4	3.0	93	SW			1		0			0	0		Habzsuda Daniel.
Pola			30.15	765.8	48.0	8.9	49	SW			1		0			0	0		I. R. Hydrographic Office
Szegedin			30.18	766.5	33.8	1.0	75	S			2		0			0	0		Karl Stancel.
Trieste			30.14	765.6	48.7	9.3	50	W			1		0			0	0		Prof. V. Farolfi.
Vienna			30.08	763.9	46.4	8.0	54	E			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.01	762.3			38.7	3.7	80	NNE			1		10		NNE	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'dr 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.68	779.3	36.4	2.4		ENE	22	9.8			9			0.020	0.51	Fog	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.63	778.0	40	4.4		E			4		6						William McNeil.
Armagh Observatory			30.60	777.2	40.2	4.6		NE	16	7.2			10						Stillman Cull
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs.			30.48	774.2	39.9	4.4		NE			4		9						John Hartnup.
Birr Castle			30.04	775.7	42.5	5.8		NE			1		10						J. Dreyer.
Bradford			30.45	773.4	40.3	4.6		NE			2		9						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	81.0	27.2		NE			4		4						F. H. Hunt.
Bywell																			
Cambridge Observatory			30.35	770.9	40.8	4.9		N			4		4					Drizzling	H. Todd.
Cape Town, Cape Colony			29.79	756.7	80	26.7		NW			1		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.82	757.4			81.9	27.7	40	WSW	7	3.1			0						The Royal Observatory.
Cardington			30.36	771.6	41.4	5.2		NE					10						John McLaren.
Carlisle			30.60	777.2	39.3	4.1		N					10			0	0	Threatening	T. Bell, for J. Cartwell.
Chatham			30.29	769.4	39.0	3.9		N			3		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.91	759.4	82.2	27.9		SE			1		2						Sgt. W. F. Hopkins
Dartmoor			30.40	772.1	34.5	1.4		NE			4		9						R. E. Power.
Donaghadee			30.59	777.0	42	5.6		NE			5		3						J. Mac Gowan, Jr.
Dover			30.26	768.6	40	4.4		NE			4		7						J. Costello.
Dublin																			
Durham Observatory			30.55	776.0	38.3	3.5		NE					8						G. D. Goldney.
Eccles, (near Manchester)			30.48	774.2	40.4	4.7		E	44.2	19.8			8					Mist	Thomas Mackereth.
Falmouth Observatory			30.35	770.9	43.0	6.4		NE	28	12.5			10						The Falmouth Obs.
Fort Napier, (Natal)			29.81	757.2	91.4	33.0		NW			3		1						Pvt. G. Salmon.
Galway			30.50	774.7	47	8.3		E			2		10						Bernard G. Clare.
Gibraltar, (Mediterranean)			29.96	761.0	60.4	15.8		ENE			3		4						Sergt. E. G. Baker.
Glasgow Observatory			30.61	777.5	37.9	3.3		E			4		10						James Gray.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.33	770.4	40	4.4		NE			4		8					Rainy	G. T. Watson.
Greenwich Royal Obs.			30.32	770.1	39.1	3.9		NE			5		10						The Royal Observatory.
Guernsey			30.25	768.3	41.5	5.3		NNE			4		8						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.43	772.9	40.0	4.4		NE					10						F. J. Page, for L. J. Cross
Halifax, (Nova Scotia)			29.31	744.5	31.1	— 0.5		SE			2		10					Rain & fog	Corp'l J. Y. Thompson.
Helston			30.30	769.6	45	7.2		NE			4		8						W. B. Moyle.
Holyhead			30.51	774.9	42	5.6		NE			5		1					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.39	771.9	39.2	4.0		NNE	24	10.7			10						The Met. Office.
Kingstown			30.25	768.3	42	5.6		E E			4		7						George Mitchell.
Lampeter																			
Leicester			30.42	772.7	41.0	5.0		NE			3		9						William J. Harrison
Llandudno			30.52	775.2	40.3	4.6		NE					10						Dr. James Nicol.
Malta, (Mediterranean)			30.13	765.3	57.0	13.9		SE			3		10					Drizzling	Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.67	779.0	59	15.0		E			2		10						William D. Penny.
Nassau, (Bahamas)			30.08	764.0	74.6	23.7		NW			4		6						Surg. Maj. I. Jameson
North Shields			30.58	776.7	40	4.4		NE			4		8						John Wm. Irvine.
Nottingham			30.45	773.4	42	5.6		NE			3		10k		NE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.42	772.7	39.1	3.9		NNE			5		10						Stephen Whitty.
Oxford, Radcliffe Obs.			30.32	770.1	43	5.6		NE			4		9						J. W. Lucas.
Plymouth			30.33	770.4	41.5	5.3		NE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.46	773.7	42	5.6		NE			4		2						W. Kennedy.
Saint Ann's Head			30.42	772.7	43	6.1		NE			5		4						John C. Walker.
St. Helier, Jersey			30.23	767.8	43.5	6.4		E			3		10						A. P. Aury.
Sandwick Manse, Orkneys			30.74	780.8	36.2	2.3		E	12	5.4			10					Mist	Rev. Dr. Clouston
Scarboro'			30.48	774.2	41	5.0		NE			5		8						F. Heard.
Scutari, (Turkey)			30.20	767.1	41.8	5.4		NE			2		4						W. H. Lyne.
Sheffield			30.46	773.7	41.4	5.2		NE			3		8						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.55	776.0	40.5	4.7		NE			6		10			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.34	770.6	41	5.0		N E			2		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.51	774.9	39.3	4.1		NE			3		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.68	779.3	41	5.0		E			4		7					Solar halo	John Smith.
Strathfield Turgiss			30.36	771.1	38.9	3.8		N			1-2		9						Charles H. Griffith.
Streatley Vicarage			30.36	771.1	41.6	5.3		ENE			7		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.68	779.3	39	3.9		NE			2		8						William Lawrence.
Taunton College																			
Thurso			30.70	779.8	39	3.9		NE			3		8						John Trotter.
Truro, Royal Institution			30.20	767.1	45	7.2		N			8		10						Royal Institution.
Valencia			30.49	774.4	46.8	8.2		ESE	3	1.3			5						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.29	769.4	39.7	4.3		NNE			3		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.26	768.6	29.5	— 1.4	58	W			4		0						
Fanöe			30.39	771.8	33.3	0.7	58	ENE			0		0						
Godthaab, (Greenland)			30.19	766.7	19.9	— 6.7		ENE			7		2						
Stykkisholm, (Iceland)			30.40	772.2	34.0	1.1	96	SE			4		8						
Thorshavn, (Faröe)			30.76	781.2	35.1	1.7	70	Calm			0		10						
Vestervig			30.41	772.4	31.3	— 0.4	66	NE			8		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.17	766.2	54.3	12.4	78						10k						Normal School.
Alençon			30.21	767.3	39.9	4.4	76	NE			4		2k			0	0		Normal School.
Amiens			30.22	767.5	45.5	7.5	87	N			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.12	765.0	44.1	6.7	62	NE	20.1	9.0			5		E	0.287	7.3		Beaumette Observatory.
Beauvais			30.23	767.8	39.0	3.9	76	ENE			1		10		NNE	0	0		Normal School.
Besançon			30.14	765.5	48.4	9.1	62	SW			2		2		SW	0.039	1.0		Normal School.
Bourges			30.11	764.7	46.4	8.0		E			2		10		E	0	0		Normal School.
Brest			30.12	765.1	46.6	8.1	77	NE			3		10		NE	0.315	8.00	Fog	Naval Observatory.
Caen			30.23	767.7	44.6	7.0	78	NNE			4		8		NE	0	0		Normal School
Carcassonne																			
Chartres			30.16	766.1	40.1	4.5		N			2		10			0	0		Normal School.
Chaumont			30.14	765.6	43.[illegible]	6.1		SW			2		10		SW	0	0		Normal School.
Le Mans			30.17	766.3	41.0	5.0	63	E			4		10			0	0		Normal School.
Mirecourt			30.09	764.2	41.5	5.3		NW			2		10		SE	0	0		Normal School.
Orleans			30.14	765.5	43.7	6.4	85	NNW			3		8		N	0	0		Normal School.
Paris			30.17	766.4	40.8	4.9		N			2		10			0	0	Fog	National Observatory.
Parthenay			30.08	764.0	52.0	11.6	91	NE			2		10			0.118	3.0		
La Roche sur Yon			30.11	764.7	45.3	7.4	85	SE			2		10			0.394	10.0		Normal School.
Rouen			30.21	767.3	40.[illegible]	4.8	67	NNE			3		10			0	0		Normal School.
Saint Lo			30.27	768.9	39.7	4.3	80	N			2		5		NE	0	0		Normal School.
Villefranche			30.03	762.7	49.8	9.9	87	E			4		5			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	28.05	727.0			38.3	3.5	78	SW	22.4	10.0			8		SW	0.083	2.1		—. Falguère.
Montsouris (near Paris)			30.17	766.3	41.4	5.2	63	NW	9.3	4.17			10kn		NW	0	0		Marié Davy.
Perpignan	29.87	757.5			55.9	13.3	71	E	13.0	5.83			5		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.10	764.5	42.1	5.6	65	NE			1		10			0	0		E. Renou.
Saint Pier e, (Martinique)																			
Tours			30.11	764.9	43.5	6.4	74	NE			3		10			0	0	Rain	C. Marquet.
Versailles, (near Paris)			30.16	766.1	41.7	5.4	66	NE			4		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.12	765.0	41.0	5.0	84	SE			2		10			0.004	0.1	Rain	Prof. Holl.
Berlin			30.16	766.0	36.5	2.5	78	NW			2		9			0	0		Prof. Arndt.
Breslau			30.04	763.0	48.4	9.1	52	W			2		2			0	0		Dr. P. Neugebauer.
Carlsruhe			30.12	765.[illegible]	46.0	7.8	72	SW			1		10			0	0		A. Senz.
Cassel			30.14	765.6	39.0	3.9	73	NNE			2		10			0	0		Dr. H. Möhl.
Cologne			30.17	766.3	39.6	4.2	74	N			7		2			0	0		Dr. Garthe.
Emden			30.42	772.6	34.5	1.4	81	NE			3		10			0	0		Prof. Prestel.
Frankfort on the Main			30.22	767.5	45.0	7.2	76	SW			1		10			0	0	Fog	Physical Society.
Friedrichshafen			30.08	764.0	44.0	7.0	78	W					5			0.441	11.2		M. Wilhelm.
Hamburg			30.26	768.6	34.7	1.5	81	NNE			4		10			0	0		W. Reinert.
Kiel			30.04	763.1	33.4	0.8	78	NNE			5		10			0	0		Prof. G. Karsten.
Königsberg			29.93	760.1	32.2	0.1	83	NW			4		9			0	0		Prof. E. Luther.
Köslin			30.34	770.5	31.1	— 0.5		N			2		10			0.016	0.4		Dr. T gert.
Leipsic			30.10	766.7	32.4	0.2	90	N			3		10			0	0	Fog	Prof. Bruhns.
Münster			30.29	767.7	40.6	4.8	76	NW			2		0			0	0		Prof. E. Heis.
Posen			30.05	763.3	21.0	— 6.1	62	NNE			3–4		9			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			30.13	765.2	42.6	5.9	71	N					9			0.004	0.1		Hartwig and Tülk.
Stuttgart			30.18	766.6	51.4	10.8	55	E					0			0	0	Rain & snow	Mr. Würth.
Thorn			29.95	760.8	40.5	4.7	70	NW			5		8			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.10	764.6	41.0	5.0	73	NE			0		0			0	0		Prof. Flesch.
Wustrow			30.23	767.0	31.3	— 0.4	85	N[illegible]E			4		10			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.14	765.6	44.4	6.9	59	SE			4		7	SE		0	0		
Mondovi			30.13	765.3	43.7	6.5	35	NNW			2		8	SSW		0	0		
Genoa			30.07	763.6	52.5	11.4	37	S	1.6	0.6			4	SW		0	0		
Pavia			30.12	765.1	49.1	9.5	41	E			2		0			0	0		
Verona			30.13	765.4	52.9	11.6	52	E			2		1			0	0		
Padua			30.11	764.7	48.7	9.3	27	N	3.1	1.4			0			0	0		
Parma																			
Bologna			30.21	767.3	43.2	6.2	31	WSW			4		2	E		0	0		
Livorno			30.11	764.9	52.9	11.6	60	WSW	6.3	2.8			10			0	0		
Urbino																			
Ancona			30.16	766.1	45.0	7.2	55	Calm								0	0		
Siena			30.08	764.1	51.2	10.6	62	SSE	0	0			10	W		0	0		
Rome			30.11	764.7	58.5	14.7	51	S	1.8	0.8			6	NE		0	0		
Naples, O.U.			30.1[illegible]	765.8	57.2	14.0	39	SW			2		1	SE		0	0		
Lecce			30.18	766.5	51.8	11.0	60	ESE	3.8	1.7			9			0.138	3.5		
Cosenza			30.19	766.7	53.1	11.7	42	NW			2		8	SE		0	0		
Catania, (Sicily)																			
Lipposto																			
Palermo			30.02	762.4	47.7	8.7	76	NE					10			0.008	0.2		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.27	768.8	41.4	5.2		NE			4								
Groningen			30.24	768.0	36.3	2.4		NE			5								
Helder			30.27	768.8	38.8	3.8		NNE			4								
Utrecht			30.21	767.3	37.2	2.9		NNE			4		10						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.50	774.8	27.7	— 0.4	52	N	19.0	8.5			0			0	0		
Christiania			30.37	771.4	30.2	— 1.0	35	NNW	18.1	8.1			3			0	0		
Tromsö					13.3	—10.4	86												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Lisbon	29.76	755.8			60.4	15.8	56	N	13.7	6.1			7						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.00	759.5	43.2	6.2	71	SSW	13	6			8						Astronomical Obs.
Wilna			29.80	756.8	37.2	2.9	76	W	7.8	3.5			10						Astronomical Obs.
Dorpat			29.81	757.2	21.7	— 5.7	76	NW	11	5			8						Physical Cabinet.
St. Petersburg			29.67	753.5	19.8	— 6.8	97	NNW	7	3			10					Snow	Central Physical Obs.
Kieff			30.04	763.0	34.3	1.3	77	SSW	11	5			2						Physical Cabinet.
Nikolaiev			30.25	768.3	34.2	1.2	85	S	4	2			8						
Kertch			30.26	768.6	40.1	4.5	66	Calm	0	0			7						Lagorio.
Moscow			29.74	755.5	36.9	2.7	55	SW	7.8	3.5			0						Meteorological Obs.
Lugan			30.04	762.9	33.6	0.9	80	WSW	16.8	7.5			10						Meteorological Obs.
Archangel			29.60	751.7	21.2	— 6.0	69	WNW	4	2			0						Ogorodnikof.
Tiflis			30.24	768.0	36.0	2.2	53	NNW	13	6			10						Physical Obs.
Astrakhan			30.26	768.6	35.2	1.8	66	W	10.1	4.5			10						Sebastianof.
Kasan			29.74	755.3	28.6	— 1.9	86	W	3.4	1.5			10						Physical Cabinet.
Orenburg			29.94	760.4	26.2	— 3.2	82	Calm	0	0			10						Tschernischef.
Ekaterinburg			29.80	756.9	30.6	— 0.8	62	Calm	0	0			3						Meteorological Obs.
Kasaly			30.17	766.2	32.4	0.2	96	N	7.8	3.5			10						Bobrof.
Tashkend			30.20	767.0	58.3	14.6	32	Calm	0	0			10						Michelson.
Barnaul			30.24	768.1	21.4	— 5.9	69	S	4	2			4						Meteorological Obs.
Yeniseisk			29.95	760.7	24.4	— 4.2	63	S	16.8	7.5			10						Yarks.
Irkutsk																			Usolzef.
Oorga			30.28	769.2	23.2	— 4.9	45	Calm	0	0			5						Mossin.
Peking, (China)			30.16	766.0	47.1	8.4	66	Calm	0	0			7						Physical Observatory.
Nertchinsk			29.97	761.3	13.6	—10.2	93	W	10.1	4.5			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Madrid			30.03	762.8	47.7	8.7	72	W	15.0	6.7		0	10	NNE		Blank	Blank	Rain	Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.93	760.3	24.8	— 4.0	77	NNW			6		5			0	0		Dr. Hildebrandsson.
Hernosand			30.00	762.0	26.1	— 3.3	39	N			7		6			0	0		
Stockholm			30.07	763.7	24.1	— 4.4	36	NNW			6		4			0	0		
Wisby			30.03	762.7	26.2	— 3.2	82	NNE			7		3		N	0	0		
Upsala—(Sub-Series)			30.08	763.9	24.6	— 4.1	58	NW			6		5						

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.63	727.3			46.0	7.8	76	N			1		9			0.008	0.2		The Observatory.
Zurich	28.39	721.1			50.0	10.0	66	W			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.7mm.; Thermometer, —0°.0 C.; Relative Humidity, +15 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.75	755.7	57.2	14.0	76	NW			4		10						
Constantinople			30.21	767.3	40.3	4.6	40	NE	7.8	3.5			8		NE	0	0		
Fao, (Persian Gulf)			29.98	761.5	73.8	23.2		SE			3		10						
Salonica			30.18	766.5	55.9	13.3		N			1		0						
Valona			30.09	764.2	53.6	12.0		W			1		0						
Varna			30.20	767.0	46.4	8.0		E			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			29.68	753.9	18	— 7.8		SW	10	4.5			10s		SW	0.05	1.3		
Cape Roziere, Quebec			29.57	751.1	25	— 3.9	100	E	10	4.5			10n			0.02	0.5	Heavy snow.	
Chatham, N. B.			29.27	743.4	33	0.6	89	SE	3	1.3			Haze			0.41	10.4		
Charlottetown, P. E. Island			29.30	744.2	35	1.7	90	SE	32	14.3			10n			0.49	12.4		
Father Point, Quebec																			
Fort Garry, Manitoba			30.40	772.1	—2[illegible]	—28.9	93	NW	4	1.8		0	2s			0	0		
Halifax, N. S.			29.24	742.7	33	0.6	99	E	5	2.2			Fog			0.46	11.7	Fog	
Kingston, Ontario			29.70	754.4	16	— 8.9	83	W	4	1.8		8c	0	W		0.02	0.5		
Montreal, Quebec			29.54	750.3	23	— 5.0	86	W	1[illegible]	6.7		Haze	Haze	SW		0.01	0.3		
Ottawa, Ontario			29.55	750.6	19	— 7.2	74	SW	10	4.5		5c	2n	SW	SW	0	0		
Parry Sound, Ontario			29.59	75[illegible].6	12	—11.1	100	W	15	6.7		2k	5n	W	W	0.10	2.5	Light snow.	
Port Dover, Ontario			29.75	755.6	12	—11.1	80	SW	13	5.8		2k	0	SW		0.10	2.5		
Port Stanley, Ontario			29.77	756.1	12	—11.1	86	W	35	15.6		5k	0	W		0.3	0.8		
Quebec, Quebec			29.39	746.5	26	— 3.3	75	W			2	0	0			0.02	0.5		
Saugeen, Ontario			29.64	752.8	9	—12.8	89	W	15	6.7			10n		W	0.03	0.8	Light snow.	
Stayner			29.62	752.3	13	—10.6	72	SW	15	6.7		5c	0	SW		0	0		
Sydney, C. B.			29.56	750.8	33	0.6	89	SE	8	3.6			10n			0.03	0.8	Light rain.	
Toronto, Ontario			29.70	754.4	16	— 8.9	83	W	12	5.4		5c	0	W		0	0		

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.63	752.6	27	— 2.8	88	W	15	6.7			10ks			0	0		
Alpena, Mich.			29.56	750.8	4	—15.6	74	W	24	10.7		2ck	5ks	W		0.01	0.3		
Atlantic City, N. J.			29.72	754.9	37	2.8	80	W	12	5.4			10ks		W	0	0		
Augusta, Ga.			30.14	765.5	43	6.1	36	W	11	4.9		5cs	0	W		0	0		
Baltimore, Md.			29.72	754.9	40	4.4	40	NW	8	3.6		2ck	2s	W	N	0	0		
Barnegat, N. J.			29.68	753.9	41	5.0	64	W	14	6.3		0	8s		S	0	0		
Benton, Montana			30.08	764.0	— 7	—21.7	100	W	4	1.8			10s			0	0		
Bismarck, Dakota			30.39	771.9	—17	—27.2	37	SE	8	3.6		Haze	5s	SE		0	0		
Boston, Mass.			29.54	750.3	39	3.9	63	NW	6	2.7		0	0			0.13	3.3		
Breckenridge, Minn.			30.37	771.4	—19	—28.3	85	NW	12	5.4		0	0			0.10	2.5		
Buffalo, N. Y.			29.72	754.9	12.5	—10.9	71	W	24	10.7		5k	0	W		0.06	1.5		
Burlington, Vt.			29.56	750.8	26	— 3.3	75	N	5	2.2			10s			0.37	9.4		
Cairo, Ill.			30.32	770.1	28	— 2.2	67	NW	12	5.4		0	0			0	0		
Cape Hatteras, N. C.			29.90	759.4	49	9.4	37	W	16	7.2		8cs	0	W		0.36	9.1		
Cape Henry, Va.			29.81	757.2	49	9.4	37	W	10	4.5		0	0			0.11	2.8		
Cape May, N. J.			29.71	754.6	38	3.3	80	SW	12	5.4		0	0			0.03	0.8		
Charleston, S. C.			30.14	765.5	47	8.3	3	W	14	6.3		8c	0	W		0.11	2.8		
Cheyenne, W. T.			29.65	753.1	19	— 7.2	67	Calm	0	0			10s			0	0		
Chicago, Ill.			30.07	763.8	11	—11.7	60	NW	14	6.3		5c	0	NW		0.05	1.3		
Cincinnati, Ohio			30.12	765.0	16	— 8.9	66	W	20	8.9		2k	0	W		0.03	0.8		
Cleveland, Ohio			29.83	757.7	10.8	—11.8	79	SW	20	8.9			10n			0.05	1.3	Light snow.	
Colorado Springs, Col.			29.70	754.4	0	0.0	80	NW	3	1.3		10cs	2s	NW		0	0		
Corsicana, Texas			30.33	770.4	36	2.2	62	NE	5	2.2		2c	0			0	0		
Davenport, Iowa			30.25	768.3	3	—16.1	86	W	16	7.2		2c	0			0.01	0.3		
Denver, Col.			29.74	755.4	18	— 7.8	68	S	4	1.8		0	5s			0	0		
Detroit, Mich.			29.80	756.9	11	—11.7	70	W	16	7.2		1ck	0	W		0	0		
Dodge City, Kansas			29.76	755.9	23	— 7.8	61	S	12	5.4		0	0			0	0		
Dubuque, Iowa			30.13	765.3	2	—16.7	71	N	14	6.3		5cs	0	NW		0.17	4.3		
Duluth, Minn.			30.15	765.8	0	—17.8	69	NW	6	2.7		2c	0			0	0		
Eastport, Me.			29.33	745.0	34	1.1	91	W			1	0	2s		W	0.78	19.8		
Erie, Penn.			29.78	756.4	13	—10.6	81	W	26	11.6		0	8ks			0.05	1.3		
Escanaba, Mich.			29.92	760.0	— 5	—20.6	63	NW	12	5.4		0	0			0.04	1.0		
Fort Gibson, I. T.			30.32	770.1	25	— 3.9	63	NE	4	1.8		2ck	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.36	771.1	— 5	—20.6	63	Calm	0	0			8s			0	0		
Galveston, Texas			30.29	769.4	53	11.7	68	E	6	2.7		2c	0			0	0		
Grand Haven, Mich.			29.95	760.7	6	—14.4	76	NW	28	12.5		0	8ks			0	0		
Indianapolis, Ind.			30.12	765.0	11	—11.7	79	W	11	4.9		5k	Haze	W		0.14	3.5		
Indianola, Texas			30.28	769.1	53	11.7	79	NE	6	2.7		8c	0	W		0	0		
Jacksonville, Fla.			30.24	768.1	52	11.1	32	W	4	1.8		8cK	0	W		0.77	19.6		
Keokuk, Iowa			30.26	768.6	10	—12.2	79	NW	11	4.9		2k	Haze	NW		0.01	.3		
Key West, Fla.			30.12	765.0	71.1	21.7	75	NE	21	9.4		10k	0	N		0	0		
Kittyhawk, N. C.			29.86	758.4	47	8.3	37	NW	28	12.5		2c	0	W		0.18	4.6		
Knoxville, Tenn.			30.11	764.8	32	0.0	32	SW	24	10.7		1k	0	W		0	0		
La Crosse, Wis.			30.15	765.8	4	—15.6	74	W	7	3.1		0	0			0.20	5.1		
Leavenworth, Kan.			30.36	771.1	11	—11.7	79	Calm	0	0		0	2s			0	0		
Lexington, Ky.			30.17	766.3	19	— 7.2	69	NW	22	9.8		8k	0	NW		0	0		
Long Branch, N. J.			29.69	754.1	39	3.9	63	NW	20	8.9		0	0			0	0		
Louisville, Ky.			30.14	765.5	18	— 7.8	52	SW	20	8.9		5k	0	W		0	0		
Lynchburg, Va.			29.81	757.2	39	3.9	37	W	12	5.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.93	760.2	— 4	—20.0	64	NW	16	7.2		0	0			0.07	1.8		
Memphis, Tenn.			30.36	771.1	33	0.6	43	NW	6	2.7		0	0			0	0		
Milwaukee, Wisconsin			30.07	763.8	1	—17.2	86	NW	10	4.5		0	2s			0.26	6.6		
Mobile, Ala.			30.32	770.1	45	7.2	46	N	5	2.2			10s			0	0		
Montgomery, Ala.			30.31	769.9	42	5.6	50	NW	10	4.5		5c	0	W		0	0		
Morgantown, W. Virginia			29.88	758.9	20	— 6.7	70	W	25	11.2			10s			0.01	0.3		
Mt. Washington, N. H.			29.41	747.0	7	—13.9	100	NW	25	11.2			Fog			0	0		
Nashville, Tenn.			30.24	768.1	34	1.1	44	W	12	5.4		0	0			0	0		
New Haven, Conn.			29.62	752.3	40	4.4	64	SW	4	1.8		5ck	5ks	SW		0.01	0.3		
New London, Conn.			29.60	751.8	39	3.9	73	W	3	1.3		2c	0	SW		0.05	1.3		
New Orleans, La.			30.33	770.4	52	11.1	55	NE	10	4.5		5c	0	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.68	753.9	36	2.2	53	NW			2	2c	0	W		0	0		
Norfolk, Va.			29.82	757.4	45	7.2	36	SW	14	6.3		2k	Sm'e			0.21	5.3		
North Platte, Neb.			29.76	755.9	16	— 8.9	66	SE	20	8.9		0	5ks		W	0	0		
Omaha, Neb.			30.37	771.4	2	—16.7	88	NW	9	4.0			10s			0	0		
Oswego, N. Y.			29.69	754.1	20	— 6.7	63	W	22	9.8			10s			Blank	Blank		
Peck's Beach			29.74	755.4	38	3.3	90	W	12	5.4		3k	3ks	W	W	0	0		
Pembina, D. T.			30.43	772.9	—20	—28.9	66	N	8	3.6		0	0			0	0		
Philadelphia, Penn.			29.73	755.1	35	1.7	62	NW	16	7.2		2k	5s	W		0	0		
Pike's Peak, C. T.			29.53	750.0	— 4	—20.0	100	NW	18	8.0			Fog			0	0	Fog	
Pittsburgh, Penn.			29.88	758.9	15	— 9.4	82	NW	16	7.2		8k	0	NW		0	0		
Port Huron, Mich.			29.76	755.9	10	—12.2	69	W	20	8.9		8k	0	W		0.03	0.8		
Portland, Maine			29.52	749.8	34	1.1	69	SW	10	4.5		0	Haze			0.09	2.3		
Portland, Or.			30.22	767.6	42	5.6	83	S	4	1.8			10s			0.16	4.1		
Punta Rassa, Fla.			30.20	767.1	57.5	14.2	57	N	18	8.0		8ck	2s	SW		0	0		
Rochester, N. Y.			29.69	754.1	15	— 9.4	65	W	20	8.9		5c	2s	W		0.02	0.5		
Salt Lake City, Utah			29.79	756.7	38	3.3	71	NW	14	6.2			10s			0.08	2.0		
Sandy Hook, N. J.			29.67	753.6	36	2.2	65	W	14	6.2		8k	0	W		0	0		
San Diego, Cal.			30.05	763.3	48	8.9	71	Calm	0	0		0	0			0	0		
San Francisco, Cal.			30.15	765.8	47	8.3	92	SW	12	5.4		0	0			0	0		
Santa Fe, N. M.			29.62	752.3	21	— 6.1	57	E	8	3.6		0	0			0	0		
Savannah, Georgia			30.17	766.3	49	9.4	37	W	9	4.0		5c	Sm'e	W		0.15	3.8		
Shreveport, La.			30.38	771.6	39	3.9	55	ESE	2	0.9		5c	0	W		0	0		
Springfield, Mass.			29.58	751.3	36	2.2	80	SW	8	3.6		2ck	5k	W	W	0.01	0.3		
St. Louis, Mo.			30.30	769.6	20	— 6.7	70	NW	9	4.0		0	0			0	0		
St. Marks, Fla.			30.27	768.8	44	6.7	75	Calm	0	0		0	0			0.08	2.0		
St. Paul, Minn.			30.17	766.3	— 6	—21.1	81	W	6	2.7		0	0			0.16	4.1		
St. Paul's Island, Alaska			29.54	750.3	34	1.1	89	NNW	24	10.7		c	10k			0.15	3.8		
Squan Beach, N. J.			29.70	754.4	37	2.8	45	W	10	4.5		5c	0	W		0	0		
Toledo, Ohio			29.82	757.4	15	— 9.4	64	SW	24	10.7		0	Haze	S		0	0		
Tybee Island, Ga.			30.20	767.1	46	7.8	60	NW	22	9.8		5c	0	W		0.10	2.5		
Vicksburg, Miss.			30.43	772.9	41	5.0	33	NE	1	0.4		0	5s			0	0		
Virginia City, Mon.			29.36	745.7	23	— 5.0	73	SW	8	3.6			10s			0	0		
Washington, D. C.			29.75	755.6	38	3.3	30	NW	12	5.4		1k	0	SW		0	0		
Wilmington, N. C.			29.98	761.5	46	7.8	26	W	16	7.2		5cs	0	W		0.10	2.5		
Wood's Hole, Mass.			29.61	752.1	42	5.6	25	W	9	4.0		0	0			0.23	5.8		
Wytheville, Va.			29.68	753.9	28	— 2.2	67	NW	16	7.2		0	0			0	0		
Yankton, D. T.			30.43	772.9	— 6	—21.1	61	NW	7	3.1		0	8s		NW	0.05	1.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—15.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.04	763.0	77	25.0		NE	4	1.8		5k	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.98	761.5	75	23.9		E				5cs	2k	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.88	758.9	73	22.8	81	S	4.8	2.2			10n		NW	0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	74	23.3		SE	3	1.3		1k	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			77	25.0		NE	8	3.6		2ck	5ks	NW		0	0		
Santiago de Cuba, , W. I.			29.86	758.4	75	23.9	72	Calm	0	0		0	2k		NE	0	0		Robert Mason.
St. Georges, Bermudas			30.01	762.2	70	21.1	87	SW	44.4	19.9		8k	5d	SW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	65	18.3		NE			2	5c	2ks	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	59	15.0	87	S	2.4	1.1		1c	2k	N		1.16	29.4		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.36	771.1	−24.5	−31.3		N	9	4.0		5c	0	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	62	16.7		S	2	0.9		0	5k			0	0		C. Partridge.
St. Johns, Newfoundland			29.74	755.4	34	1.1	84	W					10s			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.08	764.1	74.5	23.6	82	SE			2	0	6ks			0.020	0.50		Leon M. Acuña.
Ellyria, Ohio			29.88	758.9	10	−12.2	79	SW	20	8.9			6s			0.13	3.3		H. M. Redington.
Indianola, Iowa	29.44	747.8			−25	−31.7		NW			2	0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 18, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.84	758.0									10			0.949	24.1	Rain	Charnot.
Algiers			29.85	758.1	53.6	12.0	100	N			2		10						Peter.
La Calle			29.89	759.1															Kuntz.
Tunis			29.88	759.0	63.9	17.7	62	NE			3		6			0	0		Jacques.
Sfax			29.86	758.4															Chauvey.
Saida			29.82	757.3	50.2	10.1		W			1		10			0.161	4.1	Rain	Grosjean.
Tebessa			29.87	758.6															Colin.
Geriville			29.75	755.7	53.8	12.1		NW			2		6			0	0		Bernadach.
Laghouat			29.76	756.0	59.0	15.0	39	E			2		2			0	0		Poinsignon.
Biskra			29.82	757.5	71.6	22.0	29	E											Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.30	769.6	32.9	0.5	81	NE			5		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.42	772.7	27.5	− 2.5	79	W			3		7			0.083	2.1		I. R. Observatory.
Eperies			30.32	770.2	27.1	− 2.8	59	N			5		5			0	0		Julius Mikolik.
Gratz			30.34	770.6	36.3	2.4	78	S			5		10			0	0		Andreas Rospini.
Hermannstadt			30.05	763.3	39.1	4.4	64	NE			1		2			0.035	0.90		Prof. Reissenberger.
Kremsmünster			30.45	773.5	29.1	− 1.6	56	E			4		5			0.213	5.4	Snow	Prof. C. Wagner.
Lemberg			30.26	768.7	26.0	− 3.3	85	NW			4		2			0.008	0.2	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.29	769.4	29.1	− 1.6	88	N			4		6			Blank	Blank		Habzsuda Daniel.
Pola			30.13	765.3	46.4	8.0	50	E			6		4cs			0	0		I. R. Hydrographic Office
Szegedin			30.20	767.1	29.8	1.2	76	E			4		10			0	0		Karl Stancel.
Trieste			30.16	766.1	48.2	9.0	39	ENE			3		9			0	0		Prof. V. Farolfi.
Vienna			30.41	772.3	28.8	− 1.8	80	N			3		4			0.087	2.2		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Clouds. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.28	769.2			37.0	2.8	53	E			2		0			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.27	768.8	37.0	2.8		SSW	11	4.9			10			0	0	Snow	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.50	774.7	42	5.6		SW			3		8						William McNeil.
Armagh Observatory			30.57	776.5	44.0	6.7		SW	14	6.3			7						Stillman Call.
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.58	776.7	41.0	5.0		SW			1		1						John Hartnup.
Birr Castle			30.60	777.2	45.2	7.3		SW			1		10						J. Dreyer.
Bradford			30.51	774.9	40.1	5.1		SW			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.03	762.7	79.0	26.1		N			4		8						F. H Hunt.
Bywell																			
Cambridge Observatory			30.57	776.5	38.0	3.3		NE			1		1					Mist	H. Todd.
Cape Town, Cape Colony			29.82	757.4	73	22.8		W			2		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.87	758 7			76.4	24.4	52	WNW	15	6.7			8						The Royal Observatory.
Cardington			30.59	777.0	40.0	4.4							1						John McLaren.
Carlisle			30.52	775.2	40.0	4.4		W					10			0.02	0.5		T. Bell, for J. Cartwell.
Chatham			30.55	776.0	37.2	2.9		NE			3		2						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.90	759.4	79.8	26.6		SE			1		2						Sgt. W. F. Hopkins
Dartmoor			30.62	777.3	36.0	2.2		NE			2		0						R. E. Power.
Donaghadee			30.53	775.5	45	7.2		WSW			4		8						J. Mac Gowan, Jr.
Dover			30.54	775.7	36	2.2		ENE			4		4						J. Costello.
Dublin																			
Durham Observatory			30.49	774.4	40.9	4.9		WSW					10						G. D. Goldney.
Eccles, (near Manchester)			30.58	776.7	43.2	6.2		SW	2.0	0.9			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.58	776.7	38.1	3.4		E	16	7.2			6						The Falmouth Obs.
Fort Napier, (Natal)			29.83	757.7	89.0	31.7		NE			3		2						Pvt. G. Salmon.
Galway			30.47	773.0	51	10.6		SE			1		2						Bernard G. Clare.
Gibraltar, (Mediterranean)			29.82	757.4	54.6	12.6		ENE			5		10						Sergt. E. G. Baker.
Glasgow Observatory			30.46	773.7	39.7	4.3		SW			5		10						James Gray.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.60	777.2	35	1.7		E			2		3						G. T. Watson.
Greenwich Royal Obs.			30.56	776.2	40.8	4.9		ENE			2		10						The Royal Observatory.
Guernsey			30.50	774.7	40	4.4		NE			6		4						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.53	775.4	38.4	3.6		WSW					8						F. J. Page, for L. J. Cross'
Halifax, (Nova Scotia)			29.40	746.7	23.0	— 5.0		NW			4		4						Corp'l J. Y. Thompson.
Helston			30.52	775.2	42	5.6		E			4		4						W. B. Moyle.
Holyhead			30.58	776.7	44	6.7		WSW			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.56	776.2	38.2	3.4		ENE	14	6.3								Mist	The Met. Office.
Kingstown			30.63	778.9	42	5.6		ESE			2		6						George Mitchell.
Lampeter																			
Leicester			30.59	777.0	38.6	3.7		SE			1		1						William J. Harrison
Llandudno			30.56	776.2	43.1	6.2		SSW					2						Dr. James Nicol.
Malta, (Mediterranean)			29.94	760.5	58.4	14.7		SE			8		10						Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.22	767.6	40	4.4		WSW			3		8						William D. Penny.
Nassau, (Bahamas)			30.19	766.8	72.4	22.4		N			5		8						Surg. Maj. I. Jameson.
North Shields			30.51	774.9	41	5.0		WSW			3		6						John Wm. Irvine.
Nottingham			30.59	777.0	4[illegible].0	6.7		SW			2		0						E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.60	777.2	41.9	5.5		ESE			2		5						Stephen Whitty.
Oxford, Radcliffe Obs.			30.55	776.[illegible]	38	3.3		ENE			1		1						J. W. Lucas.
Plymouth			30.56	776.2	42	5.6		E			3		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.61	777.8	44	6.7		ESE			3		8						W. Kennedy.
Saint Ann's Head			30.60	777.2	39	3.9		Calm			0		1						John C. Walker.
St. Helier, Jersey			30.[illegible]7	773.9	41.5	5.3		E			6		5						A. P. Aury.
Sandwick Manse, Orkneys			30.02	762.5	42.6	5.9		WSW	40	17.9			10					Rainy	Rev. Dr. Clouston.
Scarboro'			30.54	775.7	40.7	4.8		WSW			1		9						F. Heard.
Scutari, (Turkey)			30.08	764.0	46.2	7.9		SW			1		1						W. H. Lyne.
Sheffield			30.59	777.0	40	4.4		S			1		3						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.52	775.2	41	5.0		WSW			5		10			0.022	0.56		Francis Redford.
Somerleyton, (Lowestoft)			30.58	776.7	39.1	3.9		ENE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			30.56	776.2	38.4	3.6		SW			2		7					Haze	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.21	767.3	46	7.8		SW			7		10					Rain	John Smith.
Strathfield Turgiss			30.34	770.6	39.7	4.3		E			2		0						Charles H. Griffith.
Streatley Vicarage			30.60	777.2	44	6.7		NNE			1		0						Rev. John Slatter.
Sumburgh Head, Shetland			29.89	759.2	38	3.3		WSW			7		10					Snow	William Lawrence.
Taunton College																			
Thurso			30.09	764.3	46	7.8		W			5		6						John Trotter.
Truro, Royal Institution			30.50	774.7	48	8.9		NW			2		4						Royal Institution.
Valencia			30.60	777.2	47.1	8.4		SSE	10	4.5			4						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.52	775.2	41.7	5.4		NE			2		4						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of Cape Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.42	772.7	31.6	— 0.2	74	WNW			2		10					
Faröe			30.46	773.7	34.2	1.2	72	W			4		10					
Godthaab, (Greenland)			29.61	752.1	33.4	0.8		E			4		2					
Stykkisholm, (Iceland)			30.35	770.9	28.0	— 2.2	79	E			7		5					
Thorshavn, (Faröe)			29.87	758.6	42.4	5.8	75	N			3		10					Rain
Vestervig			30.34	770.6	34.9	1.6	72	WSW			6		8					

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.11	764.7	54.0	12.2	86						5s						Normal School.
Alençon			30.45	773.4	39.9	4.4	62	W			4		10k			0	0		Normal School.
Amiens			30.45	773.3	42.1	5.6	61	ENE			6		0			0	0		Normal School.
Beaumette, (near Angers)			30.34	770.6	43.0	6.1	61	NE	12.8	5.7			5		E	0.012	0.3		Beaumette Observatory.
Beauvais																			Normal School.
Besançon			30.27	768.8	40.3	4.6	69	NE			6		5		NE	0	0		Normal School.
Bourges			30.29	769.4	46.4	8.0		N			4		5		N	0	0		Normal School.
Brest			30.39	772.0	43.7	6.5	65	NE			4		5		NE	0	0		Naval Observatory.
Caen			30.45	773.3	44.2	6.8	62	NE			4		5		NE	0	0		Normal School
Carcassonne																			
Chartres			30.37	771.4	38.7	3.7		NE			1		4k		NE	0	0		Normal School.
Chaumont			30.32	770.2	36.7	2.6		WNW			6		0		WNW	0.012	0.3		Normal School.
Le Mans			30.39	772.0	38.8	3.8	54	NE			4		5		E	0	0		Normal School.
Mirecourt			30.30	769.6	38.5	3.6		NNE			6		5s		SSW	0	0		Normal School.
Orleans			30.36	771.2	40.6	4.8	81	NE			4		5		N	0	0		Normal School.
Paris			30.39	771.8	40.8	4.9		NE			4		1ck		NE	0	0		National Observatory.
Parthenay			30.23	767.7	47.8	8.8	74	NE			6		5		S	0	0		
La Roche sur Yon			30.30	769.7	41.7	5.4	69	N			2		5		SE	0	0		Normal School.
Rouen			30.44	773.2	43.5	6.4	39	NNE			3		0			0	0		Normal School.
Saint Lo			30.48	774.3	40.8	4.9	91	NE			3		5		NE	0.035	0.9		Normal School.
Villefranche			30.21	767.3	44.8	7.1	74	WSW			4		5			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)	28.71	729.2			83.6	0.9	88	ENE	9.3	4.17			10		N	0.031	0.8		Père Pascall.
Mont-Louis			30.38	771.6	41.9	5.5	42	ENE	11.4	5.14			3k		NE	0	0		Marié Davy.
Montsouris (near Paris)	29.76	756.0			55.4	13.0	52	E	3.5	1.67			3		N	0.153	3.9		Dr. Fines.
Perpignan			30.39	771.8	44.6	6.8	43	NNE			2		0			0	0		E. Renou.
Saint Maur, (near Paris)																			
Saint Pierre, (Martinique)			30.31	769.9	42.1	5.7	58	NE			4		8		ENE	0	0		C. Marquet.
Tours			30.37	771.5	41.7	5.4	49	NE			4		3			0	0		Dr. A. Bérigny.
Versailles, (near Paris)																			H. Le Leo.
Zi-Ka-Wei, (near Shanghai)																			

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.50	774.6	31.1	— 0.5	67	E			6		2			0.090	2.3		Prof. Hoh.
Berlin			30.56	776.1	35.4	1.9	45	NE			3		8			0	0		Prof. Arndt.
Breslau			30.59	774.6	29.5	— 1.4	24	N			6		7			0	0		Dr. P. Neugebauer.
Carlsruhe			30.48	774.3	36.0	2.2	57	NE			5		9			0.118	3.0		A. Senz.
Cassel			30.48	774.3	36.0	2.2	69	E			2		0			0	0		Dr. H. Möhl.
Cologne			30.50	774.6	37.4	3.0	62	ENE			4		10			0	0	Snow.	Dr. Garthe.
Emden			30.68	779.2	34.2	1.2	38	Calm			0		0			0.079	2.0	Snow.	Prof. Prestel.
Frankfort on the Main			30.60	777.1	36.9	2.7	44	NE			3		0			0	0		Physical Society.
Friedrichshafen			30.60	777.1	32.0	0.0	90	NE					10			0	0		M. Wilhelm.
Hamburg			30.61	777.6	37.0	2.8	39	SW			4		4			0	0		W. Reinert.
Kiel			30.56	776.2	37.0	2.8	46	W			3		5			0	0		Prof. G. Karsten.
Königsberg			30.30	769.7	26.6	— 3.0	53	NW			4		7			0.071	1.8	Snow.	Prof. E. Luther.
Köslin			30.70	779.8	28.0	— 2.2		N			4		3			0.024	0.6		Dr. T gert.
Leipsic			30.58	776.7	29.3	— 1.5	52	NE			2		2			0	0		Prof. Bruhns.
Münster			30.43	773.0	38.3	3.5	59	E			2		0			0	0		Prof. E. Heis.
Posen			30.52	775.2	31.1	— 0.5	65	NW			6-7		3			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			30.43	772.9	34.7	1.5	66	NE					4			0	0		Hartwig and Tülk.
Stuttgart			30.43	772.0	30.6	— 0.8	58	NE					0			0.067	1.7		Mr. Würth.
Thorn			30.39	772.0	29.8	— 1.2	52	NW			6		6			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.39	771.8	38.7	3.7	36	NE			7		0			0	0		Prof. Flesch.
Wustrow			30.[illegible]5	776.0	3[illegible].0	0.0	56	NW			5		4			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.14	765.5	46.2	7.9	54	ESE			4		7	NW		0	0		
Mondovi			30.13	765.3	44.1	6.7	44	NW			2		10			0	0		
Genoa			30.07	763.6	52.5	11.4	37	W	4.3	1.9			10	SW		0	0		
Pavia			30.13	765.2	47.5	8.6	59	E			2		9			0	0		
Verona			30.10	764.5	52.7	11.5	39	E			2		5			0	0		
Padua			30.12	765.0	49.6	9.8	53	E	7.4	3.3			7	E		0	0		
Parma																			
Bologna			30.17	766.2	44.8	7.1	36	W			2		4	W		0	0		
Livorno			30.04	763.0	55.0	12.8	44	NE	8.1	3.6			10			0	0		
Urbino																			
Ancona			30.10	764.6	47.8	8.8	64	ESE			2		5			0.016	0.4		
Siena			30.01	762.3	50.0	10.0	40	ENE	14.3	6.4			5	NE		0	0		
Rome			29.98	761.6	54.7	12.6	77	S	3.8	1.7			10	SSE		0.012	0.3		
Naples, O.U.			30.02	762.4	49.8	9.9	85	NNW			2		10			0.047	1.2		
Lecce			30.08	763.9	53.1	11.7	70	W	8.1	3.6			9			0.122	3.1		
Cosenza			30.12	765.0	54.7	12.6	59	NW			2		10			0	0		
Catania, (Sicily)																			
Siposto																			
Palermo			29.89	759.3	59.4	15.2	69	NW			4		10			0.035	0.9		
Naples, S. R.—(Sub-Series)																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.57	776.4	37.0	2.8		ENE			4								
Groningen			30.55	776.0	33.8	1.0		SE			2								
Helder			30.58	776.7	33.1	0.6		ENE			2								
Utrecht			30.54	775.7	37.6	3.1		E			3		2						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.16	766.1	30.6	— 0.8	85	S	24.8	11.1			10			0.201	5.1	Snow	
Christiania			30.23	767.8	26.4	— 3.2	70	SSW	4.7	2.1			9			0	0		
Tromsö					14.4	— 9.8	94												

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.56	750.8			55.6	13.1	54	NNE	22.4	10.0			6						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.34	770.7	25.2	— 3.8	76	NNW	16	7			8					Snow	Astronomical Obs.
Wilna			30.13	765.3	21.7	— 5.7	56	NW	13	6			3						Astronomical Obs.
Dorpat			30.03	762.8	18.1	— 7.7	65	NNW	11	5			4						Physical Cabinet.
St. Petersburg			29.84	757.9	18.5	— 7.5	62	NW	13	6			6						Central Physical Obs.
Kieff			30.11	764.7	23.0	— 5.0	55	NW	18	8			7						Physical Cabinet.
Nikolaiev			30.06	763.4	35.2	1.8	75	SW	10.1	4.5			2						
Kertch			30.08	764.1	39.9	4.4	65	WSW	7.8	3.5			10						Lagorio.
Moscow			29.74	755.4	20.5	— 6.4	55	NNW	10.1	4.5			3						Meteorological Obs.
Lugan			29.87	758.8	32.2	0.1	74	SW	25	11			6						Meteorological Obs.
Archangel			29.78	756.3	— 1.8	—18.8	76	NW	13	6			6						Ogorodnikof.
Tiflis			30.13	765.2	36.3	2.4	72	Calm	0	0			9					Snow	Physical Obs.
Astrakhan			30.20	767.1	40.6	4.8	42	W	7.8	3.5			3						Sebastianof.
Kasan			29.60	751.9	28.9	— 1.7	94	SW	7.8	3.5			10						Physical Cabinet.
Orenburg			30.06	763.5	24.1	— 4.4	91	SE	4	2			10						Tschernischef.
Ekaterinburg			29.91	759.8	26.2	— 3.2	44	S	16.8	7.5			9						Meteorological Obs.
Kasaly			30.12	765.0	27.5	— 2.5	66	Calm	0	0			10					Snow	Sobrof.
Tashkend			30.08	764.1	65.3	18.5	27	NE	13	6			4						Michelson.
Barnaul			30.15	765.8	23.4	— 4.8	81	SW	7.8	3.5			4						Meteorological Obs.
Yeniseisk			29.63	752.6	26.2	— 3.2	79	S	7.8	3.5			10						Varks.
Irkutsk																			Usolzef.
Oorga			30.37	771.4	15.1	— 9.4	57	Calm	0	0			0						Mossin.
Peking, (China)			30.36	769.7	33.3	0.7	96	Calm	0	0			0					Rain	Physical Observatory.
Nertchinsk			30.15	765.7	14.2	— 9.9	41	WNW	10.1	4.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.96	761.0	53.2	11.8	59	E	15.0	6.7		0	7			0.094	2.4		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.10	764.6	19.8	-- 6.8	68	NW			2		2			0	0		
Hernosand			30.09	764.3	22.6	— 5.2	59	S			2		2			0	0		
Stockholm			30.19	766.9	23.5	— 4.7	56	WNW			4		3			0.031	0.8		
Wisby			30.28	769.0	25.2	— 3.8	100	NW			6		3			0.181	4.6		
Upsala—(Sub-Series)			30.21	767.2	25.5	— 3.6	54	NNW			2		1	NW		0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.72	729.5			36.7	2.6	72	NNE			6		10			0	0		The Observatory.
Zurich	28.59	726.2			31.3	— 0.4	80	NE			1		10			0.661	16.8		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.9mm.; Thermometer, —5°.4 C.; Relative Humidity, +11 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.99	761.7	61.3	16.3	52	SW			2		5						
Constantinople			30.08	764.0	43.2	6.2	40	S	2	1			0			0	0		
Fao, (Persian Gulf)			30.00	762.0	75.2	24.0		NW			3		10						
Salonica			30.04	762.9	54.0	12.8		N			1		0						
Valona			29.99	761.8	56.3	13.5		W			1		2						
Varna			30.04	763.0	48.2	9.0		N			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.11	764.8	6	—14.4		W	10	4.5		0	28		W	0	0		
Cape Roziere, Quebec			29.17	740.9	21	— 6.1	86	W	3	1.3		0	0			0	0		
Chatham, N. B.			29.23	742.4	18	— 7.8	87	SW	13	5.8		2c	8ks	SW	SW	0	0		
Charlottetown, P. E. Island			29.27	743.4	21	— 6.1	75	W	14	6.3		5k	0	W		0.02	0.5		
Father Point, Quebec																			
Fort Garry, Manitoba			30.67	770.0	—20	—28.9	93	NW	1	0.4		0	28			0	0		
Halifax, N. S.			29.33	745.0	22	— 5.6	88	W	3	1.3			8n			0.08	2.0		
Kingston, Ontario			30.17	766.3	3	—16.1	86	W	18	8.0		8c	0	W		0	0		
Montreal, Quebec			29.83	757.7	5	—15.0	63	W	40	17.9		2c	2ks	W	W	0	0		
Ottawa, Ontario			30.00	762.0	0	—17.8	50	W	18	8.0		10c	0	W		0	0		
Parry Sound, Ontario			30.25	768.3	— 5	—20.6	71	NW	20	8.9		0	0			0	0		
Port Dover, Ontario			30.33	770.4	5	—15.0	75	W	13	5.8		0	0			0	0		
Port Stanley, Ontario			30.34	770.6	6	—14.4	88	NW	25	11.2		5k	0	W		0	0		
Quebec, Quebec			30.58	776.7	6	—14.4	87	NW			7		10n		NW	0.05	1.3	Light snow.	
Saugeen, Ontario			30.29	769.4	1	—17.2	71	NW	14	6.3		10k	0	E		0	0		
Stayner			30.25	768.3	0	—17.8	85	NW	12	5.4		2k	0	NW		0	0		
Sydney, C. B.			29.21	741.9	32	0.0	72	W	17	7.6		8k	0	W		0	0		
Toronto, Ontario			30.27	768.8	3	—16.1	89	W	20	8.9		0	2ks		NW	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.06	763.5	11	—11.7	79	W	2	0.9		5k	0	W		0.03	0.8		
Alpena, Mich.			30.32	770.1	0	—17.8	69	W	12	5.4		5k	5s	W		0	0		
Atlantic City, N. J.			30.23	767.8	21	— 6.1	85	W	12	5.4		0	0			0	0		
Augusta, Ga.			30.40	772.1	35	1.7	80	NW	1	0.4		0	0			0	0		
Baltimore, Md.			30.25	768.3	26	— 3.3	65	NW	8	3.6		1k	0	NW		0	0		
Barnegat, N. J.			30.19	766.8	21	— 6.1	72	N	26	11.6		0	0			0	0		
Benton, Montana			30.37	771.4	—20	—28.9	100	Calm	0	0		0	0			0.11	2.8		
Bismarck, Dakota			30.71	770.8	—18	—27.8	34	NW	8	3.6		0	Haze			0	0		
Boston, Mass.			29.96	759.4	16	— 8.9	49	NW	24	10.7		0	0			0	0		
Breckenridge, Minn.			30.44	773.2	—20	—28.9	85	NW	10	4.5		0	0			0	0		
Buffalo, N. Y.			30.30	769.6	5	—15.0	64	W	16	7.2		1k	0	W		0.02	0.5		
Burlington, Vt.			29.91	759.7	8	—13.3	78	W	14	6.3		5k	2s	W		0	0		
Cairo, Ill.			30.26	768.6	36	2.2	45	E	16	7.2		Haze	0			0	0		
Cape Hatteras, N. C.			30.32	770.1	41	5.0	41	NW	16	7.2		0	0			0	0		
Cape Henry, Va.			30.30	769.6	37	2.8	53	NW	20	8.9		0	0			0	0		
Cape May, N. J.			30.24	768.1	25	— 3.9	75	NW	20	8.9		2k	0	NW		0	0		
Charleston, S. C.			30.39	771.9	42	5.6	56	NW	6	2.7		2c	Sm'e			0	0		
Cheyenne, W. T.			29.89	759.2	— 9	—22.8	100	N	4	1.8		2c	0			0	0		
Chicago, Ill.			30.42	772.7	17	— 8.3	83	E	10	4.5			10s			0	0		
Cincinnati, Ohio			30.40	772.1	25	— 3.9	63	NE	6	2.7		0	0			0	0		
Cleveland, Ohio			30.37	771.4	12.2	—11.0	81	NW	15	6.7		8k	0	W		0.04	1.0		
Colorado Springs, Col.			29.82	757.4	5	—15.0	75	N	18	8.0			1s			0	0		
Corsicana, Texas			29.96	761.0	53	11.7	67	S	12	5.4		10k	0	S		0	0		
Davenport, Iowa			30.43	772.9	12	—11.1	80	E	10	4.5			10n			0	0	Light snow.	
Denver, Col.			30.04	763.0	3	—16.1	73	NE	8	3.6			10s			0	0		
Detroit, Mich.			30.39	771.9	10	—12.2	59	NW	5	2.2		0	Haze			0	0		
Dodge City, Kansas			29.72	754.9	12	—11.1	80	N	36	16.1		2k	0	N		0	0		
Dubuque, Iowa			30.38	771.6	7	—13.9	65	SE	4	1.8			10s			0	0		
Duluth, Minn.			30.56	776.2	— 1	—18.3	67	N	12	5.4		0	0			0	0		
Eastport, Me.			29.48	748.8	19	— 7.2	85	W	20	8.9		2k	0	W		0.04	1.0		
Erie, Penn.			30.35	770.9	8	—13.3	78	NW	20	8.9		0	1ks			0	0		
Escanaba, Mich.			30.41	773.2	1	—17.2	71	N	9	4.0		0	0			0.05	1.3		
Fort Gibson, I. T.			29.89	759.2	53	11.7	48	S	16	7.2			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.68	779.3	— 4	—20.0	65	N	4	1.8			10s			0.10	2.5		
Galveston, Texas			30.04	763.0	63	17.2	78	SE	9	4.0			10s			0	0		
Grand Haven, Mich.			30.46	773.7	9	—12.8	67	NW	1	0.4		5c	0	NW		0	0		
Indianapolis, Ind.			30.40	773.7	18	— 7.8	68	NE	9	4.0			10s			0	0		
Indianola, Texas			29.98	761.5	65	18.3	80	SE	14	6.3		2c	5s	SW		0	0		
Jacksonville, Fla.			30.34	770.6	49	9.4	48	N	4	1.8		8k	0	W		0	0		
Keokuk, Iowa			30.27	768.8	15	— 9.4	83	E	20	8.9			10n			0.25	6.3	Heavy snow	
Key West, Fla.			30.16	766.1	68.5	20.3	75	NE	19	8.5			Haze			0	0		
Kittyhawk, N. C.			30.35	770.9	37	2.8	39	NW	12	5.4		0	0			0	0		
Knoxville, Tenn.			30.39	771.9	29	— 1.7	89	N	4	1.8		0	Haze			0	0		
La Crosse, Wis.			30.48	774.2	4	—15.6	74	N	2	0.9		Haze	Haze			0	0		
Leavenworth, Kan.			29.93	760.2	29	— 1.7	79	E	10	4.5			10s			0	0		
Lexington, Ky.			30.49	772.1	29	— 1.7	66	NE	2	0.9		0	0			0	0		
Long Branch, N. J.			30.19	766.8	19	— 7.2	67	NW	52	23.2		2c	0	NW		0	0		
Louisville, Ky.			30.38	771.6	29	— 1.7	69		4	1.8		0	0			0	0		
Lynchburg, Va.			30.30	769.6	34	1.1	76	S	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.47	773.9	0	—17.8	69	NW	12	5.4		5cs	0	NW		0	0		
Memphis, Tenn.			30.23	767.8	39	3.9	47	SE	4	1.8		0	Haze			0	0		
Milwaukee, Wisconsin			30.49	774.4	5	—15.0	87	N	9	4.0		0	5ks			0	0		
Mobile, Ala.			30.25	768.6	47	8.3	48	E	2	0.9		4ck	0			0	0		
Montgomery, Ala.			30.39	771.9	36	2.2	85	N	1	0.4		0	Fog			0	0		
Morgantown, W. Virginia			30.38	771.6	21.5	— 5.8	65	SW	9	4.0		0	8s			0	0		
Mt. Washington, N. H.			29.11	739.4	—17	—27.2	100	NW	100	44.7			Fog			0.25	6.3		
Nashville, Tenn.			30.35	770.9	35	1.7	61	E	4	1.8		0	0			0	0		
New Haven, Conn.			30.07	763.8	23	— 5.0	60	W	16	7.2		2k	0	W		0	0		
New London, Conn.			30.03	762.7	18.5	— 7.5	45	W	16	7.2		2k	0	W		0	0		
New Orleans, La.			30.21	767.3	54	12.2	55	E	8	3.6		5k	5ks	W	E	0	0		
Newport, R. I.																			
New York, N. Y.			30.17	766.3	15	— 9.4	65	W	18	8.0		0	0			0	0		
Norfolk, Va.			30.32	770.1	35	1.7	49	W	7	3.1		0	Sm'e			0	0		
North Platte, Neb.			30.05	763.3	4	—15.6	100	N	18	8.0			10n			0.25	5.3	Heavy snow	
Omaha, Neb.			30.20	767.1	15	— 9.4	82	NE	12	5.4			10n			0.25	6.3	Heavy snow	
Oswego, N. Y.			30.18	766.6	5.5	—14.7	88	NW	24	10.7		Haze	2s			lank	Blank		
Peck's Beach			30.25	768.3	24	— 4.4	74	W	24	10.7		2k	0	W		0	0		
Pembina, D. T.			30.68	779.3	—21	—29.4	63	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.26	768.6	19	— 7.2	39	NW	30	13.4		2k	0	W		0	0		
Pike's Peak, C. T.			29.46	748.3	— 3	—19.4	100	SW	12	5.4			Fog			0	0	Fog.	
Pittsburgh, Penn.			30.40	772.1	14	—10.0	82	NW	9	4.0		5k	0	NW		0.01	0.3		
Port Huron, Mich.			30.28	769.1	6	—14.4	76	NW	9	4.0		0	0			0	0		
Portland, Maine			29.73	755.1	14	—10.0	63	W	28	12.5		2c	0			0	0		
Portland, Or.			30.32	770.1	37	2.8	90	NW	4	1.8			10s			0	0		
Punta Rassa, Fla.			30.25	768.3	56.5	13.6	53	NE	20	8.9			10ks			0	0		
Rochester, N. Y.			30.21	767.3	7	—13.9	77	W	22	9.8			10n			0.03	0.8	Light snow	
Salt Lake City, Utah			29.83	757.7	25	— 3.9	50	NE	5	2.2		0	0			0.06	1.5		
Sandy Hook, N. J.			30.15	765.8	18	— 7.8	44	NW	38	17.0		5k	0	W		0	0		
San Diego, Cal.			29.85	758.2	55	12.8	70	S	8	3.6			10n			0	0	Threatening	
San Francisco, Cal.			29.97	761.2	47	8.3	55	NW	20	8.9		0	0			0	0		
Santa Fe, N. M.			29.45	748.0	32	0.0	50	S	8	3.6		5k	0	SW		0	0		
Savannah, Georgia			30.38	771.6	47	8.3	37	N	6	2.7		2c	0			0	0		
Shreveport, La.			30.11	764.8	46	7.8	69	SE	10	4.5		5ck	5s			0	0		
Springfield, Mass.			30.00	762.0	18	— 7.8	52	W	8	3.6		5k	Haze	W		0	0		
St. Louis, Mo.			30.22	767.6	31	— 0.6	68	E	16	7.2			10s			0	0		
St. Marks, Fla.			30.32	770.1	45	2.8	60	E	6	2.7		8k	0	W		0	0		
St. Paul, Minn.			30.47	773.9	— 4	—20.0	82	N	3	1.3		Haze	0			0	0		
St. Paul's Island, Alaska			30.26	768.6	30	— 1.1	78	W	27	12.1		0k	8k	WNW		0.04	1.0		
Squan Beach, N. J.			30.19	766.8	18	— 7.8	52	NW	25	11.2		2c	0	W		0	0		
Toledo, Ohio			30.31	769.9	13	—10.6	62	N	6	2.7		0	5s	S		0.01	0.3		
Tybee Island, Ga.			30.40	772.1	40	9.4	42	N	4	1.8		Haze	0			0	0		
Vicksburg, Miss.			30.27	768.8	44	6.7	54	Calm	0	0		0	Sm'e			0	0		
Virginia City, Mon.			29.70	754.4	2	—16.7	72	E	6	2.7		0	2s			0	0		
Washington, D. C.			30.29	769.4	25.5	— 3.6	54	NW	16	7.2		Haze	0			0	0		
Wilmington, N. C.			30.37	771.4	30	3.9	55	NW	4	1.8		0	0			0	0		
Wood's Hole, Mass.			29.96	761.2	19	— 7.2	54	NW	31	13.9		0	2s			0	0		
Wytheville, Va.			30.13	765.3	28	— 2.2	77	W	6	2.7		0	0			0	0		
Yankton, D. T.			30.48	774.2	5	—15.0	87	NE	14	6.2			10n			0.12	3.0	Light snow.	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.05	763.3	79	26.1		NE	4	1.8		2k	5ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	75	23.9		E				5ks	2k	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.92	760.0	77	25.0	76	E	9.6	4.3		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.17	766.3	75	23.9		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.19	766.8			77	25.0		E	9	4.0		0	1k			0.02	0.5		
Santiago de Cuba, , W. I.			29.87	758.7	74	23.3	69	N	12	5.4		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.12	765.0	64.5	18.1	65	NW	37.8	16.9		8ck	2k	SW		0.08	2.0		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	69	20.6		NE			2	5c	5n	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.			30.02	762.5	62	16.7	94	SE	14.4	6.4			10n		SE	0.52	13.2	Rain	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.63	778.0	—38	—38.9		W	6	2.7		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.11	764.8															C. Partridge.
St. Johns, Newfoundland			29.35	745.5	32	0.0	90	W				2c	5s			0	0		John Delaney.
St. Johns, Porto Rico W. I.			30.10	764.5	75.9	24.4	85	SE			2	0	4k			0.090	2.30		Leon M. Acuña.
Ellyria, Ohio			30.27	768.8	13	—10.6	100	W	4	1.8			10n			0	0		H. M. Redington.
Indianola, Iowa	29.37	746.0			11	—11.7		NE			4		10n			0	0	Snow	G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of barometer of Clifton, Jamaica, W. I., is about 2895 feet above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 19, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.94	760.5															Charnot.
Algiers			29.89	759.1	57.2	14.0	75	NW			1		6			0.874	22.2		Peter.
La Calle			29.90	759.5															Kuntz.
Tunis			29.91	759.0	62.8	17.2	61	E			3		9			0	0		Jacques.
Sfax			29.84	758.0															Chauvey.
Safda			29.93	760.1	46.6	8.1		S			1		10			0.118	3.0	Rain	Grosjean.
Tebessa			29.85	758.1															Colin.
Geriville			29.85	758.3	53.8	12.1		SE			2		10			0.433	11.0	Rain	Bernadach.
Laghouat			29.81	757.1	59.9	15.5	48	W			2		2			0	0		Poinsignon.
Biskra			29.84	757.8	69.6	20.9	43				1		9			0.059	1.5		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.09	764.3	35.8	2.1	61	Calm			0		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.95	760.7	31.1	− 0.5	78	W			2		2			0	0		I. R. Observatory.
Eperies			30.07	763.6	29.5	− 1.4	60	S			4		6			0	0		Julius Mikolik.
Gratz			30.03	762.8	31.8	− 0.1	80	SW			2.5		0			0	0		Andreas Rospini.
Hermannstadt			30.15	765.8	32.2	0.1	59	S			4		5			0	0		Prof. Reissenberger.
Kremsmünster			29.99	761.8	32.7	0.4	71	WNW			2		3			0	0		Prof. C. Wagner.
Lemberg			30.04	762.9	27.9	− 2.3	70	SW			3		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.15	765.7	31.3	− 0.4	63	S			1		8			0	0		Habzsuda Daniel.
Pola			30.03	762.8	41.4	5.2	53	WNW			2		0			0	0		I. R. Hydrographic Office
Szegedin			30.11	764.9	35.2	1.8	68	S			3		0			0	0		Karl Stancel.
Trieste			30.02	762.5	42.4	5.8	29	ENE			1		0			0	0		Prof. V. Farolfi.
Vienna			29.97	761.3	37.0	2.8	56	SSE			2		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	29.85	758.1			36.9	2.7	95	W			1		10			0.004	0.10		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.13	765.3	38.9	3.8		NW	31	13.9			5			0.010	0.25		William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.19	766.8	42	5.6		NW			3		6						William McNeil.
Armagh Observatory			30.28	769.1	46.2	7.9		N	3	1.3			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.18	766.6	44.1	6.7		W NW			3		10						John Hartnup.
Birr Castle			30.31	769.9	49.4	9.7		NW			2-3		10					Drizzling	J. Dre er.
Bradford			30.09	764.3	43.3	6.3		NW			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.18	766.6	78.6	25.9		NE			4		10						F. H Hunt.
Bywell																			
Cambridge Observatory			30.14	765.5	43.9	6.6		NNE			2		4						H. Todd.
Cape Town, Cape Colony			29.91	759.7	72.4	22.4		SE			7		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.97	761.2			72.8	22.7	54	S	27	12.1			1						Th Royal Observatory.
Cardington			30.23	767.8	45.0	7.2		NE					9						John McLaren.
Carlisle			30.12	765.0	41.4	5.2		N					2			0	0		T Bell, for J. Cartwell.
Chatham			30.12	765.0	45.0	7.2		NE			1		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	79.0	26.1		SW			1		8						Sgt. W. F. Hopkins
Dartmoor			30.30	769.6	42.2	5.7		NW			3		10						R. E. Power.
Donaghadee			30.24	768 1	45	7.2		NW			4		10						J. Mac Gowan, Jr.
Dover			30.21	767.3	44	6.7		NNE			2		8						J. Costello.
Dublin																			
Durham Observatory			30.10	764.5	43.9	6.6		NNE					7						G. D. Goldney.
Eccles, (near Manchester)			30.15	765.8	45.7	7.6		NW	1.2	0.5			10						Thomas Mackereth.
Falmouth Observatory			30.29	769.4	48.5	9.2		NW	21	9.4			10						The Fa mouth Obs.
Fort Napier, (Natal)			29.85	758.2	80.0	26.7		NE			3		8						Pvt. G. Salmon.
Galway			30.42	762.7	52	11.1		S			2		3						Bernard G. Clare.
Gibraltar, (Mediterranean)			29.96	761.0	57.5	14.7		ENE			3		10						Sergt. E. G. Baker.
Glasgow Observatory			30.18	766.6	44.7	7.1		NE			1		5						James Gray.
Gloucester, the Asylum																			I. Toller.
Great Yarmouth			30.09	764.3	43	6.1		NNW			4		4						G. T. Watson.
Greenwich Royal Obs			30.14	765.5	45.3	7.4		NNE			1		10						The Royal Observatory.
Guernsey			30.24	768.1	46.5	8.1		NW			2		8					Mist	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs			30.11	764.8	44.2	6.8		Calm					9						F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.64	752.8	15.1	— 9.4		NW			5		10						Corp'l J. Y. Thompson.
Helston			30.22	767.6	50	10.0		NW			3		10					Mist	W. B. Moyle.
Holyhead			30.21	767.3	45	7.2		NNW			4		4						John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	44.0	6.7		NNE	9	4.0			10						The Met. Office.
Kingstown			30.27	768.8	49	9.4		WNW			3		9						George Mitchell.
Lampeter																			
Leicester			30.14	765.5	43.2	6.2		NE			3		10						William J. Harrison
Llandudno			30.19	766.8	47.2	8.4		N					10						Dr. James Nicol.
Malta, (Mediterranean)			30.02	762.5	57.0	13.9		E			1		10						Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.20	767.1	44	6.7		NW			1		2						William D. Penny.
Nassau, (Bahamas)			30.20	767 1	74.3	23.5		E			3		6						Surg. Maj. I. Jameson.
North Shields			30.18	766.6	42	5.6		NNW			5		5						John Wm. Irvine.
Nottingham			30.16	766.1	44.4	6.9		N			3		10k		NW				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.14	765.5	44.7	7.1		NE			2		10					Fog	Stephen Whitty.
Oxford, Radcliffe Obs			30.12	765.0	46	7.8		NE			1		10						J. W. Lucas.
Plymouth			30.24	768.1	49	9.4		N			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.31	767.3	50	10.0		NNW			4		10						W. Kennedy.
Saint Ann's Head			30.27	768.8	47	8.3		NW			2		10						John C. Walker.
St. Helier, Jersey			30.23	763.8	46.8	8.2		NW			3		10						A. P. Aury.
Sandwick Manse, Orkneys			30.26	768.6	36.8	2.7		NW	30	16.1			8						Rev. Dr. Clouston.
Scarboro'			30.13	765.3	40.1	4.5		N			5		7						F. Heard.
Scutari, (Turkey)			30.12	765.0	45.0	7.2		NE			3		10					Mist	W. H. Lyne.
Sheffield			30.11	764.8	43.4	6.3		NNE			2		7						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.16	766.1	48.1	8.9		NW			2		3			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.10	764.5	43.1	6.2		WNW			2		5						Rev. C. J. Steward.
Stonyhurst Observatory			30.14	765.5	47.5	8.6		W			2		6					Haze	Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.24	768.1	41	5.0		NNE			2		2						John Smith.
Strathfield Turgiss			30.13	765.3	47.4	8.6		N			1		9						Charles H. Griffith.
Streatley Vicarage			30.16	766.1	48.9	9.4		NW			2		10						Rev. John Slatter.
Sumburgh Head, Shetland			29.97	761.2	34	1.1		N			8		8						William Lawrence.
Taunton College																			
Thurso			30.18	766.6	38	3.3		NNW			5		6						John Trotter.
Truro, Royal Institution			30.20	767.1	50	10.0		NW			6		8						Royal Institution.
Valencia			30.40	772.1	49.5	9.7		NNW	14	6.3			10						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.15	765.8	49	9.4		NNW			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.26	743.2	34.2	1.2	87	W			4		10					Snow & rain	
Fanöe			29.52	749.9	36.7	2.6	72	NW			8		5						
Godthaab, (Greenland)			29.55	750.6	34.5	1.4		S			2		10					Snow	
Stykkisholm, (Iceland)			30.11	764.9	37.4	3.0	78	SE			4		8						
Thorshavn, (Faröe)			30.22	767.5	33.4	0.8	61	N			4		0						
Vestervig			29.38	746.2	36.3	2.4	85	NW			9		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer
Ajaccio			30.09	764.2	61.9	16.6	73						8c						Normal School.
Alençon			30.12	765.1	41.0	5.0	74	N			2		5k			0	0		Normal School.
Amiens			30.22	767.6	40.1	4.6	62	NW			6		10			0	0		Normal School.
Beaumette, (near Angers)			30.20	767.1	43.3	6.3	67	N	3.1	1.4			10		N	0	0		Beaumette Observatory.
Beauvais			30.17	766.2	41.9	5.5	73	W			3		10		W	0	0		Normal School.
Besançon			30.19	766.8	43.5	6.4	62	S			3		5		W	0	0		Normal School.
Bourges			30.24	768.1	46.8	8.2		W			2		10		W	0	0		Normal School.
Brest			30.26	768.5	46.6	8.1	77	NNW			3		10			0	0	Fog	Naval Observatory.
Caen			30.22	767.5	43.7	6.5	85	W			2		8		W	0	0		Normal School
Carcassonne																			
Chartres			30.19	766.9	42.3	5.7		NW			3		10			0	0		Normal School.
Chaumont			30.16	766.0	40.8	4.9		NW			3		10		NW	0	0		Normal School.
Le Mans			30.26	768.7	43.7	6.5	54	N			3		8		N	0	0		Normal School.
Mirecourt			30.20	767.0	42.6	5.9		NW			4		2k		SE	0	0		Normal School.
Orleans			30.21	767.4	45.7	7.6	75	N			1		5		N	0	0		Normal School.
Paris			30.55	776.0	41.9	5.5		WNW			2		10			0	0	Fog	National Observatory.
Parthenay			30.23	767.7	50.4	10.2	55	N			2		10			0	0		
La Roche sur Yon			30.30	769.5	44.2	6.8	46	NE			2		0			0	0		Normal School.
Rouen			30.14	765.5	44.4	6.9	85	W			6		10			0	0		Normal School.
Saint Lo			30.23	767.8	45.9	7.7	31	NW			1		10		NW	0	0		Normal School.
Villefranche			30.08	764.0	46.6	8.1	92	NE			4		5		NW	0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.80	630.0			37.2	2.4	70	NNE	7.4	3.33			4		N	0.110	2.8		—. Faiguère.
Montsouris (near Paris)			30.15	765.9	42.1	5.6	67	W	3.4	1.50			10kn		W	0	0		Marié Davy.
Perpignan	29.96	761.0			53.6	12.0	48	WNW	13.0	5.83			1		W	0.016	0.4		Dr. Fines.
Saint Maur, (near Paris)			30.16	766.1	42.1	5.6	68	NW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.23	767.7	47.5	8.6	46	NW			2		10			0	0	Rain	C. Marquet.
Versailles, (near Paris)			30.16	766.1	41.7	5.4	69	NW			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.02	762.5	34.0	1.1	67	S			3		10			0	0		Prof. Hoh.
Berlin			29.70	754.4	34.5	1.4	71	SW			2		9			0.012	0.3	Snow	Prof. Arndt.
Breslau			29.85	758.3	33.8	1.0	66	SW			3		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.08	763.9	38.7	3.7	53	SW			7.5		10			0	0		A. Senz.
Cassel			29.85	758.1	36.5	2.5	71	WSW			5		9			0.090	2.3	Snow	Dr. H. Möhl.
Cologne			30.04	762.9	36.9	2.7	74	W			2		9			0	0	Rain	Dr. Garthe.
Emden			29.97	760.1	38.5	3.6	83	NW			4		0			0.063	1.6	Snow	Prof. Prestel.
Frankfort on the Main			30.10	764.5	36.0	2.2	64	SW			2		9			0	0	Snow	Physical Society.
Friedrichshafen			30.10	764.6	37.4	3.0	91	S					8			0	0		M. Wilhelm.
Hamburg			29.72	754.8	38.8	3.8	61	WNW			7		10			0.040	1.01		W. Reinert.
Kiel			29.62	752.3	38.3	3.5	66	W			6		2			0.043	1.1		Prof. G. Karsten.
Königsberg			29.58	751.2	29.8	1.2	55	SW			6		9			0.008	0.2	Snow	Prof. E. Luther.
Köslin			29.71	754.7	35.1	1.7		SW			7		10			0.016	0.4		Dr. T gert.
Leipsic			29.84	758.0	32.5	0.3	68	SW			6		10			0	0	Snow	Prof. Bruhns.
Münster			29.89	759.3	38.1	3.4	65	W			7		10			0.032	0.8	Snow	Prof. E. Heis.
Posen			29.75	755.6	34.5	1.4	75	SW			9		10			0.075	1.9		Dr. Magerer.
Strassburg, (in Alsace)			30.11	764.7	40.5	4.7	52	SW					6			0	0		Hartwig and Tülk.
Stuttgart			30.06	763.5	39.6	4.2	55	W					9			0	0		Mr. Würth.
Thorn			29.67	753.7	23.6	0.9	43	SW			6		10			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.00	761.9	37.4	3.0	50	W			7		10			0.008	0.2		Prof. Flesch.
Wustrow			29.50	749.1	34.2	1.2	73	W			8		7			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.06	763.5	41.7	5.4	66	WNW			2		8	NW		0	0		
Mondovi			30.05	763.3	40.1	4.5	71	NW			2		1			0	0		
Genoa			30.00	762.0	52.9	11.1	34	NW	7.4	3.3			0			0	0		
Pavia			30.05	763.2	44.4	6.9	52	NE			2		0	NE		0	0		
Verona			30.02	762.5	45.5	7.5	39	E			2		0			0	0		
Padua			30.02	762.6	39.7	4.3	36	WSW	1.8	0.8			0			0	0		
Parma																			
Bologna			30.14	765.6	41.4	5.2	32	E			4		2	NE		0	0		
Livorno			29.99	761.7	51.3	10.7	34	NNE	9.2	4.1			0			0	0		
Urbino																			
Ancona			30.03	762.8	47.8	8.8	57	SE					6			0	0		
Siena			29.97	761.1	47.5	8.6	47	ESE	1.3	0.6			4	NE		0	0		
Rome			29.95	760.7	57.6	14.2	58	SSW	9.4	4.2			7			0	0		
Naples, O.U.			29.98	761.6	54.0	12.2	65	NE			2		10			0.32	0.8		
Lecce			29.98	761.6	53.1	11.7	77	N	7.4	3.3			9			0	0		
Cosenza			29.95	760.8	55.2	12.9	71	NW			2		10			0	0	Rain	
Catania, (Sicily)																			
Riposto																			
Palermo			29.87	758.8	56.1	13.4	73	W			2		10			0.032	0.8		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.09	764.2	42.1	5.6		N			5								
Groningen			29.81	757.1	38.8	3.8		NW			6								
Helder			29.95	760.8	38.5	3.6		WNW			4								
Utrecht			29.95	760.7	43.0	6.1		NW			5		8						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.60	751.7	32.7	0.4	57	N	41.8	18.5			10			0	0		
Christiania			29.18	741.2	37.2	2.9	50	NNW	19.5	8.7			3			0	0		
Tromsö			29.57	751.0	12.9	—10.6	90	E			2		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.74	755.3			58.1	14.5	46	NE	15.0	6.7			1						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.83	757.7	31.1	— 0.5	62	SSE	20	9			10						Astronomical Obs.
Wilna			29.87	758.8	27.5	— 2.5	69	S	13	6			10					Fog.	Astronomical Obs.
Dorpat			29.80	756.9	22.8	— 5.1	64	SE	11	5			8						Physical Cabinet.
St. Petersburg			29.87	758.6	19.2	— 7.1	56	SE	4	2			0						Central Physical Obs.
Kieff			30.21	767.3	20.5	— 6.4	61	SW	11	5			3						Physical Cabinet.
Nikolaiev			30.32	770.1	27.7	— 2.4	71	W	4	2			6						
Kertch			29.94	760.4	33.4	0.8	61	N	10.1	4.5			0						Lagorio.
Moscow			30.00	762.0	13.1	—10.5	53	NW	13	6			7						Meteorological Obs.
Lugan			30.09	764.4	23.5	— 4.7	67	W	16.8	7.5			1						Meteorological Obs.
Archangel			29.94	760.4	— 4.0	—20.0	79	NW	4	2			4						Ugorodnikof.
Tiflis			30.15	765.9	42.4	5.8	38	NW	20	9			3						Physical Obs.
Astrakhan			30.13	765.4	41.9	5.5	61	SSW	13	6			8						Sebastianof.
Kasan			29.72	755.0	14.4	— 9.8	74	WSW	10.1	4.5			4						Physical Cabinet.
Orenburg			29.94	760.5	25.9	— 3.4	95	SW	10.1	4.5			10					Snow	Tschernischef.
Ekaterinburg			29.80	756.9	26.6	— 3.0	74	SW	13	6			10						Meteorological Obs.
Kasaly			30.35	770.9	35.1	1.7	90	SW	13	6			3					Snow	Bobrof.
Tashkend			30.06	763.4	57.2	14.0	62	NE	13	6			10					Rain	Michelson.
Barnaul			29.91	759.7	28.9	— 1.7	74	NE	4	2			4						Meteorological Obs.
Yeniseisk			30.09	764.2	26.8	— 2.9	75	SE	10.1	4.5			8						Marks.
Irkutsk																			Usolzef.
Oorga			30.01	762.9	23.7	— 4.6	93	NNW	10.1	4.5			10						Messin.
Peking, (China)			30.07	763.8	43.8	6.3	60	Calm	0	0			2						Physical Observatory
Nertchinsk			30.09	764.3	12.2	—11.0	59	Calm	0				0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.09	764.4	52.2	11.2	55	NE	7.4	3.3		0	5			0	0		Royal Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.54	750.4	20.1	— 6.6	87	SE			2		10			0	0		
Hernosand			29.34	745.2	26.6	— 3.0	87	SE			6		10			0.220	5.6	Snow	
Stockholm			29.07	738.3	31.3	— 0.4	85	SSE			6		10			0.051	1.3	Snow	
Wisby			29.18	741.1	31.0	— 0.2	100	WSW			4		5			0.445	11.3		
Upsala—(Sub-Series)			28.68	728.5	29.8	— 1.2	96	ESE			6		10			0	0	Snow	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.68	728.5			40.7	4.7	67	SSW			2		10			0	0		The Observatory.
Zurich	28.40	721.4			40.1	4.5	77	W			6		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.9mm.; Thermometer, —3°.5 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.04	762.9	59.0	15.0	62	N			2		10						
Constantinople			30.14	765.5	41.5	5.3	68	NE	22	10			10		ENE	0	0		
Fao, (Persian Gulf)			30.14	765.5	73.4	23.0		NW			3		0						
Salonica			30.06	763.5	46.4	8.0		NW			2		10						
Valona			29.91	759.8	57.6	14.2		W			1		2						
Varna			30.35	771.0	41.0	5.0		NE			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville			30.43	772.9	8	—13.3		Calm	0	0		0	0			0	0		
Cape Roziere, Quebec			29.46	748.3	8	—13.3	89	W	1	0.4		5k	5ks	W	W	0	0		
Chatham, N. B.			29.59	751.6	0	—17.8	76	W	15	6.7		0	0			0	0		
Charlottetown, P. E. Island			29.58	751.3	3	—16.1	95	W	26	11.6		5k	0	W		0	0		
Father Point, Quebec									8	3.6		2c	2s	W	W	0	0		
Fort Garry, Manitoba			30.35	770.9	—12	—24.4	95	S	15	6.7			8n			0	0		
Halifax, N. S.			29.55	750.6	15	— 9.4	86	NW	0	0		0	0			0	0		
Kingston, Ontario			30.44	773.2	5	—15.0	88	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.26	768.6	5	—15.0	62	W	20	8.9		0	0			0	0		
Ottawa, Ontario			30.35	770.9	0	—17.8	45	W	6	2.7		0	0			0	0		
Parry Sound, Ontario			30.47	773.9	—12	—24.4	55	N	5	2.2		0	0			0	0		
Port Dover, Ontario			30.39	771.9	9	—12.8	78	N	7	3.1		5k	0	SW		0	0		
Port Stanley, Ontario			30.37	771.4	10	—12.2	77	NE	10	4.5		2c	0	W		0	0		
Quebec, Quebec			30.05	763.3	— 4	—20.0	83	W			4	0	0			0	0		
Saugeen, Ontario			30.45	773.4	— 5	—20.6	93	Calm	0	0		0	0			0	0		
Stayner			30.41	772.4	1	—17.2	85	NW	1	0.4		0	0			0	0		
Sydney, C. B.			29.51	749.5	11	—11.7	67	W	14	6.3		0	5ks		W	0	0		
Toronto, Ontario			30.42	772.7	5	—15.0	85	N	13	5.8		2c	0	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.32	77.1	50	10.0	83	W	15	6.7		5c	0	W		0	0		
Alpena, Mich.			30.47	773.9	— 1	—18.3	84	N	1	0.4		0	Sm'e			0	0		
Atlantic City, N. J.			30.32	770.1	28	— 2.2	77	W	12	5.4		5cs	Haze	W		0	0		
Augusta, Ga.			30.25	768.3	49	9.4	71	Sr.	1	0.4			10s			0	0		
Baltimore, Md.			30.30	769.6	32	0.0	60	Calm	0	0		5ck	5s	W		0	0		
Barnegat, N. J.			30.31	770.6	28	— 2.2	67	SW	2	0.9			10s			0	0		
Benton, Montana			29.63	752.6	28	— 2.2	77	SW	20	8.9			10s			0	0		
Bismarck, Dakota			30.12	765.0	-14	—25.6	45	SE	4	1.8		0	5s			0	0		
Boston, Mass.			30.14	765.5	20	— 6.7	55	NW	14	6.3		1cs	0			0	0		
Breckenridge, Minn.			30.44	773.2	— 5	- 20.6	85	NW	8	3.6		0	0			0	0		
Buffalo, N. Y.			30.38	771.6	11	—11.7	60	NW	4	1.8		5k	0	W		0	0		
Burlington, Vt.			30.25	768.3	37	2.8	77	NW	7	3.1		2k	2s			0	0		
Cairo, Ill.			30.07	763.8	41	5.0	73	N	12	5.4			1s			0	0	Threatening	
Cape Hatteras, N. C.			30.44	770.6	47	8.3	85	Calm	0	0		2cs	Haze	W		0	0		
Cape Henry, Va.			30.39	769.4	46	7.8	62	S	8	3.6		Haze	Haze			0	0		
Cape May, N. J.			30.33	770.4	32	0.0	69	NW	4	1.8		5cs	0	W		0	0		
Charleston, S. C.			30.26	768.6	55	12.8	86	NE	4	1.8			1s			0	0		
Cheyenne, W. T.			29.71	754.6	1	—17.2	100	SW	8	3.6		0	0			0	0		
Chicago, Ill.			30.29	769.4	16	— 8.9	83	NE	15	6.7			10n			0.07	1.8	Light snow.	
Cincinnati, Ohio			30.11	764.8	33	0.6	89	E	7	3.1		8cs	Sm'e			0	0		
Cleveland, Ohio			30.28	769.1	16	— 8.2	91	NE	4	1.8			10n			0.09	2.3	Light snow.	
Colorado Springs, Col.			29.75	755.6	— 2	—18.9	100	N	2	0.9		2cs	0	NW		0.13	3.3		
Corsicana, Texas			29.95	760.7	37	2.8	90	N	19	8.5			10s			0.25	6.3	Threatening	
Davenport, Iowa			30.36	771.1	10	—12.2	88	NE	16	7.2			10s			0.02	0.5		
Denver, Col.			29.85	758.2	8	—13.3	78	Calm	0	0		0	0			0.02	0.5		
Detroit, Mich.			30.30	771.1	14	—10.0	81	NE	10	4.5			10s			0.01	0.3		
Dodge City, Kansas			29.9	759.7	10	—12.2	79	N	8	3.6			10s			0	0		
Dubuque, Iowa			30.33	770.4	11	—11.7	60	SE	8	3.6		0	5s			0	0		
Duluth, Minn.			30.52	775.2	—18	—27.8		N	1	0.4		0	0			0	0		
Eastport, Me.			29.79	756.7	11	—11.7	61	NW	26	11.6		2c	0	NW		0	0		
Erie, Penn.			30.35	770.9	16	— 8.9	83	NE	12	5.4		2ck	Haze	NE		0	0		
Escanaba, Mich.			30.53	775.5	—10	—23.3	54	N	8	3.6		0	0			0	0		
Fort Gibson, I. T.			30.04	763.0	28	— 2.2	88	N	12	5.4			10n			0.06	1.5	Sleet	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.35	770.9	— 7	—21.7	60	E	9	4.0		0	0			0	0		
Galveston, Texas			29.85	758.2	66	18.9	94	SE	8	3.6		2c	2s	W		0.65	16.5		
Grand Haven, Mich.			30.21	767.3	6	—14.4	76	E	9	4.0			10s			0	0		
Indianapolis, Ind.			30.14	765.5	25	— 3.9	87	NE	4	1.8			10n			0.46	11.7	Light snow.	
Indianola, Texas			29.82	757.4	66	18.9	94	S	4	1.8			Fog			0.29	7.4		
Jacksonville, Fla.			30.21	767.3	60	15.6	88	NE	5	2.2			10s			0	0		
Keokuk, Iowa			30.18	766.6	12	—11.1	61	NE	8	3.6			10s			0.44	11.2		
Key West, Fla.			30.15	765.8	75	23.9	76	E	12	5.4		Haze	5ks			0	0		
Kittyhawk, N. C.			30.34	770.6	46	7.8	78	SW	8	3.6		8k	Haze	SW		0	0		
Knoxville, Tenn.			30.16	766.1	38	3.3	71	E	5	2.2			10s			0	0		
La Crosse, Wis.			30.46	773.7	0	—17.8	69	N	5	2.2		2c	0	N		0	0		
Leavenworth, Kan.			30.26	768.6	16	— 8.9	83	NE	6	2.7			10s			0	0		
Lexington, Ky.			30.07	763.8	42	5.6	50	S	14	6.3			10s			0	0		
Long Branch, N. J.			30.35	770.9	27	— 2.8	77	NW	12	5.4		8ck	0	NW		0	0		
Louisville, Ky.			30.04	763.0	36	2.2	61	NW	4	1.8			10s			0	0		
Lynchburg, Va.			30.30	769.6	36	2.2	54	NE	3	1.3		10k	Haze	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.52	775.2	— 5	—20.6	63	E	8	3.6		5cs	0	NE		0	0		
Memphis, Tenn.			30.00	762.0	50	10.0	93	Calm	0	0			10n			0.35	8.9	Light rain.	
Milwaukee, Wisconsin			30.40	772.1	8	—13.3	89	NE	12	5.4		0	5ks			0.03	0.8		
Mobile, Ala.			30.03	762.7	58	14.4	100	E	5	2.2			10n			1.30	33.0	Light rain.	
Montgomery, Ala.			30.11	764.8	50.5	10.3	89	S	8	3.6			10n			0.40	10.2	Light rain.	
Morgantown, W. Virginia			30.20	767.1	-4.5	— 4.2	80	N	6	2.7			10s			0.02	.5		
Mt. Washington, N.			29.47	748.5	—17	—27.2	100	NW	92	41.1		0	0			0	0		
Nashville, Tenn.			30.04	763.0	52	11.1	48	SE	3	1.3		2k	8s	W		0	0		
New Haven, Conn.			30.30	769.6	22	— 5.6	72	NW	9	4.0		2cs	2s	NW		0	0		
New London, Conn.			30.28	769.1	23	— 5.0	66	NW	8	3.6		2c	0	W		0	0		
New Orleans, La.			29.96	761.0	64.5	18.1	92	SE	8	3.6			10s		SE	2.13	54.1	Threatening	
Newport, R. I.																			
New York, N. Y.			30.34	770.6	22	— 5.6	72	NW	10	4.5		5k	2s	W		0	0		
Norfolk, Va.			30.30	769.6	43.5	6.4	68	S	8	3.6		5c	0	SW		0	0		
North Platte, Neb.			30.00	762.0	5	—15.0	75	Calm	0	0			10s			0.06	1.5		
Omaha, Neb.			30.36	771.1	2	—16.7	86	N	7	3.1		5ck	0	W		0.02	0.5		
Oswego, N. Y.			30.41	772.4	10	—12.2	75	N	2	0.9		10cs	Haze			Blank	Blank		
Peck's Beach			30.35	770.9	27	— 2.8	88	NW	4	1.8			10s			0	0		
Pembina, D. T.			30.40	772.1	18	— 7.8	67	SE	8	3.6		0	0			0	0		
Philadelphia, Pa.			30.34	770.6	26	— 3.3	65	N	5	2.2		2ck	2s	W	W	0	0		
Pike's Peak, C. T.			29.44	747.8	— 5	—20.6	100	SW	12	5.4			Fog			0	0	Fog	
Pittsburgh, Penn.			30.26	768.6	20	— 6.7	85	NE	8	3.6			10n			0	0	Light snow.	
Port Huron, Mich.			30.40	772.1	10	—12.2	79	E	12	5.4		5k	2s	W		0	0		
Portland, Maine			30.02	762.5	19	— 7.2	54	W	1	0.4		0	Haze			0	0		
Portland, Or.			30.09	764.3	41	5.0	82	S	8	3.6			10s			0.18	4.6		
Punta Rassa, Fla.			30.18	766.6	66.5	19.2	78	E	12	5.4		1ck	2s	S		0	0		
Rochester, N. Y.			30.39	771.9	13	—10.6	81	W	8	3.6			10s			0	0		
Salt Lake City, Utah			29.95	760.7	18	— 7.8	68	SE	1	0.4		0	0			0	0		
Sandy Hook, N. J.			30.31	769.9	24.5	— 4.2	74	NW	15	6.7		2k	8ks	W		0	0		
San Diego, Cal.			30.10	764.5	41	5.0	83	E	4	1.8		0	0			0.05	1.3		
San Francisco, Cal.			30.06	763.5	47	8.3	77	Calm	0	0		Haze	0			0	0		
Santa Fe, N. M.			29.44	747.8	19	— 7.2	62	SW	12	5.4			10s			0	0		
Savannah, Georgia			30.23	767.8	55	12.8	87	E	4	1.8			10s			0	0		
Shreveport, La.			29.87	758.7	59	15.0	94	Calm	0	0			10n			0.52	13.2	Threatening	
Springfield, Mass.			30.27	768.8	20	— 6.7	39	NW	12	5.4		2cs	Haze			0	0		
St. Louis, Mo.			30.18	766.6	2	— 6.7	85	S	12	5.4			10s			0.10	2.5		
St. Marks, Fla.			30.14	765.5	54	12.2	93	E	10	4.5			10n			0.10	2.5	Light rain.	
St. Paul, Minn.			30.44	773.2	—15	-26.1	72	Calm	0	0		0	Haze			0	0		
St. Paul's Island, Alaska			30.71	780.0	19	— 7.2	69	NW	18	8.0		0	10k			0.08	2.0	Snowing	
Squan Beach, N. J.			30.34	760.6	26	— 3.3	75		4	1.8		5k	0			0	0		
Toledo, Ohio			30.22	767.6	15	— 9.4	82	NE	24	10.7			10n			0	0	Light snow.	
Tybee Island, Ga.			30.25	768.3	55	12.8	93	SE	4	1.8			10s			0	0		
Vicksburg, Miss.			29.99	761.7	56	13.3	93	SE	8	3.6			10n			1.84	46.7	Light rain.	
Virginia City, Mon.			29.59	746.5	11	—11.7	79		2	0.9			10s			0	0		
Washington, D. C.			30.31	769.9	30.5	— 0.8	89	NE	8	3.6			10s		W	0	0	Threatening	
Wilmington, N. C.			30.31	769.9	49	9.4	71	SE	7	3.1			10s			0	0		
Wood's Hole, Mass.			30.21	767.3	24	— 4.4	48	NW	19	8.5		0	5s			0	0		
Wytheville, Va.			30.04	763.0	34	1.1	69	W	1	0.4		Haze	0			0	0	Haze	
Yankton, D. T.			30.53	775.4	—12	—24.4	50	NW	1	0.4		5c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbados, W. I.			30.11	764.8	79	26.1		E	4	1.8		5k	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, Guadeloupe, do			30.08	764.0	77	25.0		E				5ks	0	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.90	759.4	73	22.8	81	E	4.8	2.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.26	768.6	78	25.6		SE	4	1.8		2ks	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			75	23.9		E	8	3.6		2ck	8k	E		0.09	2.3		
Santiago de Cuba, , W. I.			29.93	760.2	76	24.4	72	Calm	0	0		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.35	770.9	61	16.1	66	NNW	28.8	12.9		0	9k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.14	765.5	65	18.3		NE			1	7n	5ks	NE	NE	1.01	25.6	Showery	E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	63	17.2	83	E	15.6	7.0			10n		E	1.45	36.6		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.21	767.3	—25.5	—31.9		E	3	1.3		2c	0	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.12	765.0															C. Partridge.
St. Johns, Newfoundland			29.48	753.9	24	— 4.4	100	S				2c	5s			0	0		John Delaney.
St. Johns, Porto Rico, W. I.			30.16	766.1	73.6	23.1	89	E			3	0	6k			0.020	0.50	Drizzling	Leon M. Acuña.
Ellyria, Ohio			30.20	767.1	15	— 9.4	83	NE	8	3.6			10n			0.30	7.6	Stormy	H. M. Redington.
Indianola, Iowa	29.44	747.8			5	—15.0		NE			1	2ks	0	W		0.50	12.7		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of Ellyria and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters, above sea-level. The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 20, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.06	763.5															Charnot.
Algiers			29.92	760.0	56.1	13,4	84	E			1		3			0.035	11.9	Fog	Peter.
La Calle			29.92	759.9															Kuntz.
Tunis			29.73	755.1	60.1	15.6	75	WNW			3		7			0.165	4.2	Rain	Jacques.
Sfax			29.84	758.0															Chauvey.
Safda			30.05	763.2	50.7	10,4		NNE			1		6			0.158	4.0	Rain	Grosjean.
Tebessa			29.82	757.5															Colin.
Geriville			30.04	762.9	47.8	8.8		W			1		10			0.197	5.0	Rain	Bernadach.
Laghouat			29.95	760.7	57.2	14.0	47	SE			2		7			0	0		Poinsignon.
Biskra			29.86	758.4	64.4	17.8	56	NW			4		2			0.102	2.6		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.69	754.2	38.7	3.7	62	NE			3		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.69	779.4	29.3	− 1.5	89	W			4		5			0.087	2.2		I. R. Observatory.
Eperies			29.53	750.0	33.3	0.7	75	SE			2		8			0	0		Julius Mikolik.
Gratz			29.63	752.5	39.0	3.9	67	SE			5		5			0	0		Andreas Rospini.
Hermannstadt			29.62	752.4	38.5	3.6	51	ESE			2		2			0	0		Prof. Reissenberger.
Kremsmünster			29.72	755.0	28.8	− 1.8	90	NW			5		7			0.386	9.8	Snow	Prof. C. Wagner.
Lemberg			29.51	749.5	32.5	0.3	87	SW			3		8			0.008	0.2	Snow	Dr. T. Stanecki.
Nylregyhaza			29.67	753.6	31.3	− 0.4	89	SW			1		10			Blank	Blank		Habzsuda Daniel.
Pola			29.66	753.3	47.3	8.5	58	SSW			1		10s			0	0		I. R. Hydrographic Of'ce
Szegedin			29.67	753.7	33.1	0.6	78	Calm			0		10			0	0		Karl Stancel.
Trieste			29.67	753.5	43.5	6.4	51	NW			1		10			0	0		Prof. V. Farolfi.
Vienna			29.63	752.6	31.5	− 0.3	69	W			4		10			0.264	6.7		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.77	756.1			34.5	1.4	97	NNW			2		9		N	0.075	1.90		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.16	766.6	38.1	3.4		NW	16	7.2			9			0	0	Fog	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.23	767.8	41	5.0		WSW			2		2						W. McNeil.
Armagh Observatory			30.27	768.8	42.4	5.8		NNE	5	2.2			4						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.21	767.3	41.0	5.0		NNW			2		1						John Hartnup.
Birr Castle			30.25	768.3	47.0	8.3		NNE			1		4						J. Dre er.
Bradford			30.13	765.3	39.8	4.3		NW			1		10						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.06	763.5	78.0	25.6		NE			2		6						F. H Hunt.
Bywell																			
Cambridge Observatory			30.13	765.3	40.0	5.6		N			2		4						H. Todd.
Cape Town, Cape Colony			29.78	756.4	79	26.1		NW			1		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.18	757 2			86.7	30 4	40	SSE	12	5.4			1						The Royal Observatory.
Cardington			30.17	766.3	41.0	5.0		N					10						John McLaren.
Carlisle			30.20	767.1	41.0	5.0		NW					8			0	0		T Bell, for J. Cartwell.
Chatham			30.10	764.5	41.2	5.1		NE			2		10						James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.98	761.5	80.5	26.9		NE			1		5						Sgt. W. F. Hopkins
Dartmoor			30.22	767.6	38.2	3.4		NE			2		6						R. E. Power.
Donaghadee			30.24	768.1	43	6.1		N			3		0						J. Mac Gowan, Jr.
Dover			30.09	764.3	41	5.0		NW			4		7						J. Costello.
Dublin																			
Durham Observatory			30.16	766.1	38.1	3.4		N					10						G. D. Goldney.
Eccles, (near Manchester)			30.20	767.1	42.6	5.9		SW	2.0	0.9			6						Thomas Mackereth.
Falmouth Observatory			30.20	767.1	42.6	5.9		ENE	9	4.0			3					Fog	The Fa mouth Obs.
Fort Napier, (Natal)			29.77	756.1	83.5	28.6		N			4		9						Pvt. G. Salmon.
Galway			30.26	768.6	53	11.7		SW			1		2						Bernard G. Clare.
Gibraltar, (Mediterranean)			29.83	757.7	57.2	14.0		ENE			5		10						Sergt. E. G. Baker.
Glasgow Observatory			30.21	767.3	39.0	3.9		NNE			1		8					Mist	James Gray.
Gloucester, the Asylum																			E. Toller.
Great Yarmouth			30.05	763.3	41	5.0		NNW			5		6					Snow	G. T. Watson.
Greenwich Royal Obs			30.13	765.3	40.0	4.4		N			4		10						The Royal Observatory.
Guernsey			30.14	765.5	44	6.7		NE			4		0						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs			30.15	765.8	38.0	3.3		N					8						F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)			29.95	760.7	17.5	— 8.1		NW			2		6						Corp'l J. Y. Thompson.
Helston			30.15	765.8	48	8.9		NE			4		4						W. B. Moyle.
Holyhead			30.23	767.8	41	5.0		NNW			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	40.1	4.5		NNW	14	6.3			10						The Met. Office.
Kingstown			30.26	768.6	41	5.0		N			1		4						George Mitchell.
Lampeter																			
Leicester			30.16	766.1	39.8	4.3		N			4		10						William J. Harrison
Llandudno			30.21	767.3	42.5	5.8		E					0						Dr. James Nicol.
Malta, (Mediterranean)			29.83	757.7	59.4	15.2		SE			2		10						Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.20	767.1	45	7.2		NNE			1		10						William D. Penny.
Nassau, (Bahamas)			30.10	764.5	75.2	24.0		E			4		7						Surg. Maj. I. Jameson.
North Shields			30.17	766.3	40	4.4		N			6		6						John Wm. Irvine.
Nottingham			30.18	766.6	40.0	4.4		NW			3		10k		N				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.19	766.8	38.5	3.6		N			3–4		9						Stephen Whitty.
Oxford, Radcliffe Obs			30.16	766.1	41	5.0		N			2		10						J. W. Lucas.
Plymouth			30.19	766.8	45.5	7.5		E			2		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.19	766.8	48	8.9		SE			3		5						W. Kennedy.
Saint Ann's Head			30.22	767.6	46	7.8		Calm			0		2						John C. Walker.
St. Helier, Jersey			30.12	765.0	47.5	8.6		E			4		5						A. P. Aury.
Sandwick Manse, Orkneys			30.20	767.1	38.1	3.4		NNW	16	7.2			7						Rev. Dr. Clouston.
Scarboro'			30.13	765 3	30.8	— 0.7		N			5		10					Hail, rain & snow	F. Heard.
Scutari, (Turkey)			29.78	756.4	47.4	8.6		WSW			1		7						W. H. Lyne.
Sheffield			30.18	766.6	40.9	4.9		NNE			1		7						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.21	767.3	48.3	9.0		NNW			1		2			0	0		Francis Redford.
Somerleyton, (Lowestoft)			30.06	763.5	41.5	5.3		NNW			2		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.20	767.1	39.4	4.1		N			2		5					Haze	Stonyhurst Obs.
Stornoway, Lewis C., Hebr.			30.22	767.6	42	5.6		W			1		6						John Smith.
Strathfield Turgiss			30.16	766.1	41.5	5.3		N			1		8						Charles H. Griffith.
Streatley V carage																			Rev. John Slatter.
Sumburgh Head, Shetland			30.08	764.0	37	2.8		N			2		8						William Lawrence.
Taunton College																			
Thurso			30.19	766.8	40	4.4		NNW			3		6						John Trotter.
Truro, Royal Institution			30.11	764.8	49	9.4		SE			4		6						Royal Institution.
Valencia			30.24	768 3	52.5	11.4		NNW	11	4.9			7						Meteorological Obs.
Wick																			
Wisbech																			
Worthing																			S. H. Miller.
York			30.15	765.8	42	5.6		NNE			2		10						William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.37	746.1	30.4	— 0.9	74	NNW			7		9						
Fanöe			29.66	753 4	30.2	— 1.0	79	N			7		1						
Godthaab, (Greenland)			29.36	745.7	30.9	— 0.6		E			6		10						
Stykkisholm, (Iceland)			29.93	760.2	46.6	8.1	83	S			2		10						
Thorshavn, (Faröe)			30.13	765.3	37.6	3.1	79	W			4		10						
Vestervig			29.63	752.3	33.8	1.0	85	NNE			7		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.63	752.6	56.7	13.7	60						8k						Normal School.
Alençon			30.20?	767.0?	45.3	7.4	61	N			2		5k			0	0		Normal School.
Amiens			30.20?	767.0?	42.1	5.6	69	NE			5		10			0.055	1.4		Normal School.
Beaumette, (near Angers)			30.04	763.0	46.2	7.9	54	NE	7.2	3.2			10		NE	0.008	0.2		Beaumette Observatory.
Beauvais			30.10	764.6	41.0	5.0	42	N			3		8		N	0	0		Normal School.
Besançon			30.02	762.6	42.4	5.8	55	S			3		8		E	0	0		Normal School.
Bourges			30.07	763.7	47.5	8.6		N			4		10			0.035	0.9		Normal School.
Brest			30.06	763.5	48.7	9.3	73	NNE			3		5		NE	0.039	1.00		Naval Observatory.
Caen			30.14	765.5	46.7	8.2	58	NE			4		5		NE	0.043	1.1		Normal School.
Carcassonne																			
Chartres			30.10	764.5	40.5	4.7		N			2		10			0.079	2.0		Normal School.
Chaumont			30.01	762.3	38.5	3.6		WNW			3		10		WNW	0.012	0.3		Normal School.
Le Mans			30.10	764.5	44.6	7.0	57	NE			2		5		NE	0.039	1.0		Normal School.
Mirecourt			29.94	760.5	37.8	3.2		NW			4		5k		SE	0	0		Normal School.
Orleans			30.09	764.3	43.2	6.2	51	NE			3		5		NNW	0	0		Normal School.
Paris			30.07	763.6	42.4	5.8		NW			2		5k		N	0	0		National Observatory.
Parthenay			30.02	762.5	50.0	10.0	91	N			2		10			0	0		
La Roche sur Yon			30.07	763.7?	49.6	9.8	76	NE			2		8		S	0	0		Normal School.
Rouen			30.09	764.4	43.0	6.1	46	NNE			6		10			0	0		Normal School.
Saint Lo			30.31	769.8	44.2	6.8	62	N			2		5		NE	0.028	0.7		Normal School.
Villefranche			30.17	766.2	43.0	6.1	86	SE			6		5			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	28.62	726.9			34.7	1.5	67	NNE	16.8	7.5			3		N	0	0		—. Falguère.
Montsouris (near Paris)			30.06	763.4	42.8	6.0	44	N	5.3	2.5			10k			0	0		Marié Davy.
Perpignan	29.79	756.6			53.8	12.1	46	WNW	14.8	6.6			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.06	763.5	36.0	2.2	40	N			3		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.06	763.5	46.0	7.8	61	ENE			1		5		E	0.075	1.9		C. Marquet.
Versailles, (near Paris)			30.06	763.4	44.6	7.0	42	NNW			2		9			0.007	0.19		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.72	754.8	31.1	0.6	84	NW			8		7			0.020	0.5	Snow	Prof. Hoh.
Berlin			29.47	748.5	37.4	3.0	46	SW			2		7			0.067	1.7	Snow	Prof. Arndt.
Breslau			29.46	748.2	33.6	0.9	77	W			7		9			0.012	0.3	Snow & hail	Dr. P. Neugebauer.
Carlsruhe			29.85	758.1	41.0	5.0	47	NW			10		3			0	0		A. Senz.
Cassel			29.62	752.4	31.3	0.4	73	NW			8		10			0.110	2.8	Snow	Dr. H. Möhl.
Cologne			29.88	758.9	36.9	2.7	72	WNW			5		10			0	0	Snow	Dr. Garthe.
Emden			29.86	758.4	36.5	2.5	93	N			4		2			0.110	2.8	Snow	Prof. Prestel.
Frankfort on the Main			29.90	759.4	38.5	3.6	75	NW			3		7			0.063	1.6		Physical Society.
Friedrichshafen			29.95	760.8	32.0	0.0	90	NW					10			0.000	0.01	Snow	M. Wilhelm.
Hamburg			29.61	752.0	38.3	3.5	39	NNW			7		5			0.012	0.3		W. Reinert.
Kiel			29.[illegible]8	751.2	35.8	2.1	58	NW			5		5			0	0		Prof. G. Karsten.
Königsberg			29.22	742.3	32.9	0.5	77	SW			2		9			0.020	0.5	Snow	Prof. E. Luther.
Köslin			29.48	748.7	32.0	0.0		NW			5		10			0.090	2.3		Dr. Tsgert.
Leipsic			29.61	752.0	32.2	0.1	76	WNW			5		9			0.067	1.7	Snow	Prof. Bruhns.
Münster			29.89	759.1	36.5	2.5	89	NW			5		10			0.035	0.9	Snow	Prof. E. Heis.
Posen			29.40	746.8	33.8	1.0	66	SW			8		9			0.031	0.8		Dr. Magener.
Strassburg, (in Alsace)			29.88	758.9	39.9	4.4	68	W					6			0.039	1.0		Hartwig and Tülk.
Stuttgart			29.82	757.5	36.5	2.5	55	NW					8			0	0	Snow	Mr. Würth.
Thorn			29.29	744.0	33.6	0.9	71	W			6		7			0.063	1.6		Dr. Hasenbalg.
Treves, (Trier)			29.85	758.3	37.6	3.1	73	W			3		10			0.075	1.9		Prof. Flesch.
Wustrow			29.44	747.7	30.4	0.9	65	NW			6		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.65	753.2	47.5	8.6	57	S			2		1			0	0		
Mondovi			29.67	753.5	43.9	6.6	61	NW			2		0			0	0		
Genoa			29.68	753.8	53.6	12.0	61	SW	8.1	3.6			2	SE		0	0		
Pavia			29.63	752.7	51.3	10.7	61	SW			8		0			0	0		
Verona			29.61	7 2.1	48.0	8.9	52	E			2		5			0	0		
Padua			29.60	751.9	42.4	5.8	61	ESE	1.8	0.8			10			0	0		
Parma																			
Bologna			29.69	754.2	46.6	8.1	27	ENE			4		2	S		0	0		
Livorno			29.70	754.3	53.8	12.1	51	SW	9.8	4.4			2			0	0		
Urbino																			
Ancona			29.63	752.6	48.6	9.2	63						1			0	0		
Siena			29.67	753.5	51.8	11.0	47	SW	0	0			9	W		0	0		
Rome			29.71	754.6	57.9	14.4	48	SW	3.8	1.7			5			0	0		
Naples, O. U.			29.79	756.7	58.5	14.7	53	S			2		4	SW		0	0		
Lecce			29.74	755.4	54.9	12.7	74	W	11.2	5.0			7			0.189	4.8		
Cosenza			29.74	755.5	58.8	14.9	52	SSE			2		10			0.051	1.3		
Catania, (Sicily)																			
Riposto																			
Palermo			29.69	754.1	53.4	11.9	87	W			2		10			0.201	5.1		
Sub-Series.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.02	762.5	37.8	3.2		NNW			5								
Groningen			29.74	755.5	34.2	1.2		NNW											
Helder			29.88	759.0	37.4	3.0		NNW			4								
Utrecht			29.85	758.3	39.2	4.0		NNW			5		8						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.85	758.2	34.7	1.5	72	N	21.9	9.8			1			0	0		
Christiania			29.65	753.1	28.8	— 1.8	52	NNE	28.6	12.8			1			0.004	0.1		
Tromsö			29.83	757.7	13.6	—10.2	90	E			2		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. H. Fradesso da Silveira, Director of the Observatory of the Royal Polytechnic School at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.64	752.9			57.6	14.2	47	NE	6.3	2.8			1						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.34	745.2	34.2	1.2	89	WSW	7	3			7						Astronomical Obs.
Wilna			29.43	747.6	27.5	— 2.5	82	SE	16.8	7.5			9						Astronomical Obs.
Dorpat			29.54	750.2	20.5	— 6.4	84	SE	13	6			10						Physical Cabinet.
St. Petersburg			29.73	755.1	19.8	— 6.8	60	ESE	13	6			10						Central Physical Obs.
Kieff			29.76	756.0	24.1	— 4.4	100	SE	13	6			10					Snow	Physical Cabinet.
Nikolaiev			29.85	758.3	30.0	— 1.0	74	ESE	13	6			8						
Kertch			29.86	758.4	37.9	3.3	65	ESE	16.8	7.5			10						Lagorio.
Moscow			30.08	764.1	20.3	— 6.5	60	S	7.8	3.5			7						Meteorological Obs.
Lugan			30.09	764.2	21.6	— 5.8	74	ESE	20	9			5						Meteorological Obs.
Archangel			30.29	769.3	6.1	—14.4	74	Calm	0	0			0					Solar corona	Ogorodnikof.
Tiflis			30.34	770.7	43.9	6.6	50	SE	10.1	4.5			9						Physical Obs.
Astrakhan			30.48	774.1	28.2	— 2.1	47	ESE	7.8	3.5			1					Snow	Sebastianof.
Kasan			30.17	766.4	7.2	—13.8	71	W	4	2			0						Physical Cabinet.
Orenburg			30.32	770.0	8.6	—13.0	88	SW	10.1	4.5			0						Tschernischef.
Ekaterinburg			29.75	755.7	24.4	— 4.2	91	E	4	2			10					Snow	Meteorological Obs.
Kasaly			30.47	773.8	26.2	— 3.2	63	NE	13	6			10						Sobrof.
Tashkend			30.68	779.2	37.6	3.1	93	Calm	0	0			10						Michelson.
Barnaul			30.17	766.3	19.4	— 7.0	78	Calm	0	0			3						Meteorological Obs.
Yeniseisk			29.74	755.5	25.9	— 3.4	87	E	7.8	3.5			0						Clarks.
Irkutsk																			Usolzef.
Oorga			30.39	771.9	18.3	— 7.6	84	Calm	0	0			0						Massin.
Pekin, (China)			29.87	758.8	48.6	9.2	72	Calm	0	0			8						Physical Observatory.
Nertchinsk			30.15	765.9	15.3	— 9.3	75	Calm	0	0			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.95	760.8	53.2	11.8	42	NE	5.1	2.3		2	0	NW		0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.73	755.2	16.5	-- 8.6	94	NE			2		10			0.017	1.2	Light snow	
Hernosand			29.63	75 .7	17.6	— 8.0	83	NE			4		8			0	0		
Stockholm			29.33	744.9	21.6	— 5.8	90	NNE			7		10			0.150	3.8	Snow	
Wisby			29.06	738.0	32.7	0.4	92	ESE			2		5			0.150	3.8		
Sub-Series.																			
Upsala			29.45	748.0	23.2	- 4.9	86	NNE			6		10			0	0	Snow	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.51	724.2			41.0	5.0	42	NNE			4		2			0	0		The Observatory.
Zurich	28.24	717.4			35.6	2.0	69	W			1		7			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.3mm.; Thermometer, —3°.2 C.; Relative Humidity, —18 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.94	760.4	64.2	17.9	62	S			4		10						
Constantinople			29.78	756.5	46.4	8.0	74	S	2	1			10		NE	0	0		
Fao, (Persian Gulf)			30.16	766.0	75.2	24.0		NW			3		10						
Salonica			29.70	754.4	56.1	13.4		NW			1		0						
Valona			29.70	754.3	57.6	14.2		SW			1		10						
Varna			29.80	757.0	48.2	9.0		N			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.15	765.8	9	—12.8		NE	5	2.2			10s		NE	0	0		
Cape Roziere, Quebec			29.82	757.4	2	—16.7	72	NW	8	3.6		2c	0	NW		0	0		
Chatham, N. B.			29.96	761.0	6	-14.4	78	W	7	2.7		8c	0	W		0	0		
Charlottetown, P. E. Island			29.93	760.2	9	—12.8	70	NW	11	4.9		5c	0	NW		0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			29.99	761.7	0	—17.8	85	SE	11	4.9		0	2s		S	0	0		
Halifax, N. S.			29.87	758.7	17	— 8.3	85	NW	4	1.8		5c	0	SW		0	0		
Kingston, Ontario			30.12	765.0	9	—12.8	90	NE	12	5.4			10n		NE	0.02	0.5	Light snow	
Montreal, Quebec			30.17	766.3	6	—14.4	51	NE	13	5.8		Haze	Haze			0	0		
Ottawa, Ontario			30.15	765.8	7	—13.9	61	E	4	1.8			10n			0	0	Threatening	
Parry Sound, Ontario			30.10	764.5	10	—12.2	47	NE	9	4.0		5k	5ks	NE	NE	0	0		
Port Dover, Ontario			29.85	758.2	13	—10.6	100	NE	21	9.4			10n			0.10	2.5	Light snow	
Port Stanley, Ontario			29.83	757.7	16	— 8.9	83	NE	25	11.2			10n		E(?)	0.05	1.3		
Quebec, Quebec			30.16	766.1	— 1	—18.3	69	W			1		10n		W	0	0		
Saugeen, Ontario			30.03	762.7	10	—12.2	96	E	10	4.5			10s			0	0	Light snow	
Stayner			30.04	763.0	12	—11.1	90	E	3	1.3			10n			0	0	Light snow	
Sydney, C. B.			29.84	757.9	15	— 9.4	77	W	10	4.5		0	5n		W	0	0		
Toronto, Ontario			30.01	762.2	11	—11.7	94	NE	18	8.0			10n			0.40	10.2	Light snow	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.04	763.0	11	—11.7	100	N	15	6.7			10n			0.17	4.3	Light snow	
Alpena, Mich.			30.06	763.5	8	—13.3	66	NE	12	5.4		2c	0	N		0	0		
Atlantic City, N. J.			29.80	756.9	35	1.7	100	NE	19	8.5			10n			0.15	3.8	Light ra	
Augusta, Ga.			29.81	757.2	65	18.3	94	S	11	4.9			10ks			0.60	15.2		
Baltimore, Md.			29.77	756.1	34	1.1	90	NE	4	1.8			10n			0.17	4.3	Sleet	
Barnegat, N. J.			29.82	757.4	33	0.6	100	N	27	12.1			10n			0.16	4.1	Light rain	
Benton, Montana			29.73	754.9	23	— 5.0	86	SW	2	0.9			10s			0	0		
Bismarck, Dakota			29.76	755.9	3	—16.9	73	S	8	3.6			10s			0.01	0.3		
Boston, Mass.			30.10	764.5	19	— 7.2	92	N	4	1.8			10n			0.12	3.0	Heavy snow	
Breckenridge, Minn.			30.06	763.5	— 3	—19.4	89	SE	8	3.6			10s			0	0		
Buffalo, N. Y.			29.89	759.2	11.5	—11.4	70	NE	20	8.9			10n			0.07	1.8	Heavy snow	
Burlington, Vt.			30.14	765.5	11	—11.7	80	N	4	1.8			10s			0	0		
Cairo, Ill.			29.77	756.1	28	— 2.2	78	N	20	8.9			1's			1.41	35.8		
Cape Hatteras, N. C.			29.83	757.7	63	17.2	94	SW	22	9.8			10ks		SW	0.11	2.8	Threatening	
Cape Henry, Va.			29.71	754.6	60	15.6	94	SW	10	4.5			10s			0.14	3.5		
Cape May, N. J.			29.74	755.4	39	3.9	100	NE	14	6.3			10n			0.35	8.9	Light rain	
Charleston, S. C.			29.92	760.0	62	16.7	94	SW	12	5.4		2c	8ks	S		2.56	65.0		
Cheyenne, W. T.			29.60	751.8	19	— 7.2	52	N	12	5.4		8c	2s	W		0	0		
Chicago, Ill.			29.97	761.2	17	— 8.3	67	NE	14	6.3		Haze	5cs			0.03	0.8		
Cincinnati, Ohio			29.68	753.9	32	0.0	89	N	8	3.6			Sm'e			0.41	10.4		
Cleveland, Ohio			29.71	754.6	19	— 7.2	100	NE	18	8.0			10n			0.25	6.3	Light snow	
Colorado Springs, Col.			29.61	752.1	12	—11.1	80	N	1	0.4			10s			0	0		
Corsicana, Texas			29.94	760.5	29	— 1.7	85	N	8	3.6		0	0			0.02	0.5		
Davenport, Iowa			29.98	761.5	10	—12.2	79	NE	8	3.6		2ck	Sm'e			0	0		
Denver, Col.			29.70	754.4	30	— 1.1	57	NW	9	4.0		0	2s			0	0		
Detroit, Mich.			29.84	757.9	16	— 8.9	83	NE	15	6.7			10s			0.05	1.3		
Dodge City, Kansas			29.58	751.3	20	— 6.7	70	SW	4	1.8		0	0			0	0		
Dubuque, Iowa			29.90	759.4	8	—13.3	55	E	4	1.8		5cs	0			0	0		
Duluth, Minn.			30.20	767.1	— 3	—19.4	83	NE	1	0.4		0	0			0	0		
Eastport, Me.			30.10	764.5	11	—11.7	61	N	12	5.4		10c	0	W		0	0		
Erie, Penn.			29.72	754.9	18	— 7.8	83	NE	32	14.3			10n			0.04	1.0	Light snow	
Escanaba, Mich.			30.19	766.8	— 9	—22.8	35	N	8	3.6		0	0			0	0		
Fort Gibson, I. T.			29.86	758.4	26	— 3.3	88	N	8	3.6			10s			0.15	3.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.82	757.4	9	—12.8	78	Calm	0	0			10s			0	0		
Galveston, Texas			29.89	759.2	43	6.1	91	N	21	9.4			10ks			0	0		
Grand Haven, Mich.			29.99	761.7	12	—11.1	79	NE	12	5.4			10n			0	0	Light snow	
Indianapolis, Ind.			29.77	756.1	19	— 7.2	92	N	4	1.8			10s		N	0.58	14.7		
Indianola, Texas			29.98	761.5	40	4.4	63	N	20	8.9		0	0			0.08	2.0		
Jacksonville, Fla.			29.96	761.0	70	21.1	90	S	16	7.2		8k	0	S		0	0		
Keokuk, Iowa			29.88	758.9	14	—10.0	63	N	12	5.4			10s			0	0		
Key West, Fla.			30.04	763.0	77.4	23.6	82	S	9	4.0		Haze	2ks			0	0		
Kittyhawk, N. C.			29.76	755.9	62	16.7	89	SW	24	10.7			10k			0.06	1.5		
Knoxville, Tenn.			29.66	753.4	55	12.8	93	S	20	8.9			10n			1.50	38.1	Heavy rain	
La Crosse, Wis.			30.09	764.3	3	—16.1	73	N	5	2.2		0	0			0	0		
Leavenworth, Kan.			29.82	757.4	22	5.6	86	NE	2	0.9			1's			0	0		
Lexington, Ky.			29.63	752.6	33	0.6	89	N	14	6.3			Fog			0.50	12.7	Fog	
Long Branch, N. J.			29.91	759.7	27	2.8	100	NE	30	13.4			10n			0.29	7.4	Sleet	
Louisville, Ky.			29.64	752.8	32	0.0	79	Calm	0	0			10s			0.13	3.5	Threatening	
Lynchburg, Va.			29.75	755.6	39	3.9	86	E	2	0.9			10n			0.57	14.5	Light rain	
Malone, N. Y.																			
Marquette, Mich.			30.24	768.1	— 6	—21.1	61	W	8	3.6		0	0			0	0		
Memphis, Tenn.			29.75	755.6	37	2.8	90	NW	6	2.7			10n			1.14	28.9	Light rain	
Milwaukee, Wisconsin			30.01	762.2	14	—10.0	81	NE	16	7.2		2k	0	E		0	0		
Mobile, Ala.			29.78	756.4	68	20.0	100	S	9	4.0			10n			0.17	4.3	Light rain	
Montgomery, Ala.			29.76	755.9	66	18.9	97	S	6	2.7		5k	5ks	SW		1.85	47.0	Threatening	
Morgantown, W. Virginia			29.56	750.8	40	4.4	95	SE	2	0.9			10n			0.70	17.8	Light rain	
Mt. Washington, N. H.			29.84	757.9	8	—13.3	100	NW	10	4.5			10n			0.02	0.5		
Nashville, Tenn.			29.61	752.1	45	7.2	92	NW	10	4.5			10n			0.23	5.8	Light rain	
New Haven, Conn.			30.02	762.5	21	— 6.1	85	NE	13	5.8			10n			0.14	3.5	Sleet & snow	
New London, Conn.			30.03	762.7	22	— 5.6	93	NE	12	5.4			10n			0.11	2.8	Sleet	
New Orleans, La.			29.76	756.1	70	21.1	85	SW	12	5.4		10k	0	SW		0.03	0.8		
Newport, R. I.																			
New York, N. Y.			29.91	759.7	24	— 4.4	87	NE	20	8.9			10n			0.06	1.5	Sleet	
Norfolk, Va.			29.72	754.9	59.5	15.2	94	SW	12	5.4			10s		SW	0.11	2.8	Threatening	
North Platte, Neb.			29.48	748.8	15	— 9.4	73	S	2	0.9		5k	0	W		0	0		
Omaha, Neb.			29.98	761.5	10	—12.2	89	N	4	1.8			10s			0	0		
Oswego, N. Y.			30.02	762.5	13.2	—10.4	91	ENE	8	3.6			10n			0.06	1.5	Heavy snow	
Peck's Beach			29.77	756.1	36	2.2	100	E	24	10.7			10n			0.47	11.9	Light rain	
Pembina, D. T.			30.00	762.0	— 1	—18.3	69	SE	6	2.7			5s			0	0		
Philadelphia, Penn.			29.83	757.7	29	— 1.7	89	E	12	5.4			10n			0.25	5.8	Sleet	
Pike's Peak, C. T.			29.40	746.7	— 7	—21.7	100	NW	24	10.7			Fog			0	0	Fog	
Pittsburgh, Penn.			29.56	750.8	35	1.7	100	NE	3	1.3			10n			0.72	18.3	Light rain	
Port Huron, Mich.			29.89	759.2	15	— 9.4	82	NE	28	12.5			10s			0.33	8.4		
Portland, Maine			30.14	765.5	65	18.3	84	N	8	3.6			10s			0	0		
Portland, Or.			30.18	766.6	38	3.3	81	SW	8	3.6			10s			0.16	4.1		
Punta Rassa, Fla.			30.05	763.3	73.5	23.1	90	SE	14	6.2		Haze	5s			0	0		
Rochester, N. Y.			29.95	760.7	13	—10.6	100	NE	12	5.4			10n			0.09	2.3	Light snow	
Salt Lake City, Utah			29.89	759.2	32	0.0	60	NW	12	5.4			10s			0.04	1.0		
Sandy Hook, N. J.			29.91	759.7	26.5	— 3.1	100	NE	30	13.4			10n			0.21	5.3	Sleet	
San Diego, Cal.			30.11	764.8	43	6.1	75	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.17	766.3	45	7.2	76	SW	2	0.9		0	0			0	0		
Santa Fe, N. M.			29.55	750.6	27	— 2.8	53	SW	4	1.8		0	5s			0	0		
Savannah, Georgia			29.99	759.4	64	17.8	94	S	8	3.6			Fog			2.99	63.2	Fog	
Shreveport, La.			29.88	758.9	36	2.2	100	W	12	5.4			10s			0.42	10.7		
Springfield, Mass.			30.07	763.8	16	— 8.9	83	N	8	3.6			10n			0.15	3.8	Light snow	
St. Louis, Mo.			29.84	757.9	20	— 6.7	70	NE	12	5.4			10s			0.41	10.4		
St. Marks, Fla.			29.90	759.4	67	19.4	94	S	12	5.4			10s			0.01	0.3		
St. Paul, Minn.			30.04	763.0	— 5	—20.6	82	E	3	1.3		0	Haze			0	0		
St. Paul's Island, Alaska			30.96	786.4	19	— 7.2	54	NNW	7	3.1		0	10k			0.01	0.3	Snowy	
Squan Beach, N. J.			29.87	758.7	33	0.6	90	NE	25	11.2			10n			0.10	2.5	Light rain	
Toledo, Ohio			29.78	756.4	16	— 8.9	85	N	12	5.4			10n			0	0	Threatening	
Tybee Island, Ga.			29.93	760.2	60	15.6	100	S	16	7.2			10s			1.86	47.2		
Vicksburg, Miss.			29.74	755.4	57	13.9	93	W	8	3.6			10n			2.21	56.1	Light rain	
Virginia City, Mon.			29.69	754.1	17	— 8.3	83	SW	4	1.8			10s			0	0		
Washington, D. C.			29.78	756.4	32	0.0	95	N	8	3.6			10n			0.15	3.8	Mist	
Wilmington, N. C.			29.85	758.2	66	18.9	90	SW	8	3.6		2k	5s	SW	NE	0.18	4.6		
Wood's Hole, Mass.			30.05	763.3	26	3.3	76	NE	5	2.2			10n			0.11	2.8	Heavy snow	
Wytheville, Va.			29.44	747.8	53	11.7	86	W	5	2.2			10n			0.46	11.7	Heavy rain	
Yankton, D. T.			30.01	762.2	2	—16.7	72	NE	6	2.7			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.07	763.8	80	26.7		NE	3	1.3		5k	2ks	NE		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.06	763.5	73	22.8		E				5k	2n	E		2.00	50.8	Rain	L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	74	23.3	82	S	7.2	3.2		2k	0	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	78	25.6		SE	8	3.6			10s			0	0		James Gall.
St. Thomas, St. T., W. I.	30.32	770.1			76	24.4		ESE	10	4.5		1c	2k	SW		0.025	0.6		W. S. Cameron.
Santiago de Cuba, , W. I.			29.94	760.5	75	23.9	63	NW	1.2	0.5		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.30	769.6	61	16.1	74	S	31.5	14.1		10s	2k	W		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	64	17.8		NE			2	5c	7cs	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	62	16.7	83	E	6	2.7		2c	8k	S	E	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.10	764.5	— 7.5	—21.9	79	S	6	2.7		1c	0	S		0	0	Mirage	J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	61	16.1		SE	2	0.9		0	8k						C. Partridge.
St. Johns, Newfoundland			29.65	753.1	21	— 6.1	100	W				10k	10s			0.25	6.3		John Delaney.
St. Johns, Porto Rico, W. I.			30.15	765.7	75.6	24.2	72	E			5	0	3k			0.042	1.07		Leon M. Acuña.
Ellyria, Ohio			29.65	753.1	18	— 7.8	83	NE	16	7.2			10n			0.90	22.9		H. M. Redington.
Indianola, Iowa	29.17	740.9			8	—13.3		NE			1	2c	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters, above sea-level.

The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 21, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.80	757.0															Charnot.
Algiers			29.67	753.6	58.6	14.8	67	NE			2		8			0	0	Fog.	Peter.
La Calle			29.75	755.6															Kuntz.
Tunis			29.77	756.2	58.6	14.8	61	W			3		10			0.012	0.3	Rain	Jacques.
Sfax			29.85	757.4															Chauvey.
Saida			29.78	756.5	46.8	8.2		ESE			2		10			0.197	5.0	Rain	Grosjean.
Tebessa			29.78	756.4															Colin.
Geriville			29.80	757.0	49.3	9.6		N			4		10			0.433	11.0	Rain	Bernadach.
Laghouat			29.82	757.5	50.0	10.0	100	SE			2		10			0.669	17.0	Heavy rain	Poinsignon.
Biskra			29.81	757.2	54.9	12.7	83	E			2		10			0.571	14.5	Heavy rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.85	758.1	41.2	5.1	43	NE			2		9			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.74	754.4	28.8	— 1.8	86	W			4		10			0	0		I. R. Observatory.
Eperies			29.69	751.1	32.0	0.0	58	W			2		7			0	0		Julius Mikolik.
Gratz			29.84	758.0	37.6	3.1	46	NW			5		2			0	0		Andreas Rospini.
Hermanstadt			29.74	755.4	38.1	3.4	46	NW			3		5			0.017	0.45		Prof. Reissenberger.
Kremsmünster			29.94	760.5	28.0	— 2.2	67	NW			2		2			0.039	1.0	Snow	Prof. C. Wagner.
Lemberg			29.64	752.9	32.0	0.0	81	W			4		4			0.012	0.3	Snow	Dr. T. Stanecki.
Nyiregyhaza			29.76	755.8	35.2	1.8	66	W			3		6			Blank	Blank		Habsuda Daniel.
Pola			29.72	754.8	43.0	6.6	38	E			5		9ks			0	0		I. R. Hydrographic Office
Szegedin			29.82	757.5	36.0	2.2	61	W			3		8			0	0		Karl Stancel.
Trieste			29.76	756.0	43.3	6.3	24	E			2		7			0	0		Prof. V. Farolfi.
Vienna			29.86	758.5	30.6	— 0.8	69	WNW			2		9			0.224	5.7		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.90	759.4			37.9	3.3	55	NE			1		8		N	0.067	1.70		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5	45.0	7.2		W	6	2.7			9			0	0	Fog	William Boswell.
Annanhill																			
Ardrossan																			W. H Dunlop.
Armagh Observatory			30.22	767.6	48.2	9.0		N	7	3.1									William McNeil.
Banbridge																			Stillman Call
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.10	766.8	40.1	4.5		W			2		10						
Birr Castle			30.23	767.8	50.2	10.1		N			1		10						John Hartnup.
Bradford																		Rainy	J. Drewer.
Bridgetown, (Barbadoes)			30.03	762.8	79.0	26.1		NE			4		5						J. Mc Landsborough.
Bywell																			F. H Hunt.
Cambridge Observatory			30.18	766.6	40.9	4.9		NNE			1		4						
Cape Town, Cape Colony			29.76	755.9	67	19.4		NW			4		4						H. Todd.
Cape Good Hope Obs.	29.82	757.4			69.9	21.6	70	NW	10	4.5			0						Sgt. D. E. Hunt.
Cardington			30.20	762.5	43.0	6.1		N					9						Th Royal Observatory.
Carlisle			30.18	766.6	43.9	6.6		NW					10						John McLaren.
Chatham			30.14	765.5	37.0	2.8		N			1		8			0	0		T Bell, for J. Cartwell.
Cochyfoel Farm																			James Conroy.
Colombo, (Ceylon)			29.94	760.5	81.6	27.6		NW			1		2						
Dartmoor			30.28	769.1	40.0	4.4		NNE			1		7						Sgt. W. F. Hopkins
Donaghadee			30.19	766.8	48	8.9		NNW			3		10						R. E. Power.
Dover			30.14	765.5	39	3.9		NE			4		5						J. Mac Gowan, Jr.
Dublin																			J. Costello.
Durham Observatory			30.12	765.0	45.2	7.3		NW					10						
Eccles, (near Manchester)			30.21	767.3	44.4	6.9		W	2.0	0.9			10						G. D. Goldney.
Falmouth Observatory			30.23	767.8	44.2	6.8		E	10	4.5			4					Mist	Thomas Mackereth.
Fort Napier, (Natal)			29.81	757.2	73.5	23.1		E			1		10					Fog	The Falmouth Obs.
Galway			30.26	768.6	53	11.7		W			1		1						Pvt. G. Salmon.
Gibraltar, (Mediterranean)			29.74	755.4	62.2	16.8		E			4		8						Bernard G. Clare.
Glasgow Observatory			30.12	765.0	49.0	9.4		W			2		7						Sergt. E. G. Baker.
Gloucester, the Asylum																			James Gray.
Great Yarmouth			30.15	765.8	41	5.0		E			2		4						F. Toller.
Greenwich Royal Obs			30.17	766.3	41.5	5.3		N			1		10						G. T. Watson.
Guernsey			30.19	766.8	41	5.0		NNE			2		7						The Royal Observatory.
Halifax, Moorside Obs																			Dr. S. E. Hoskins. [ley.
Halifax, (Nova Scotia)			29.71	754.6	17.4	— 8.1		N			2		3						F. J. Page, for L. J. Cross-
Helston			30.19	766.8	49	9.4		E			4		6						Corp'l J. Y. Thompson.
Holyhead			30.19	766.8	43	6.1		SW			1		10						W. B. Moyle.
Hull Park																		Mist	John Tilston.
Kew Observatory			30.18	766.6	41.2	5.1		N	12	5.4			10						
Kingstown			30.23	767.7	44	6.7		WNW			2		10					Threatening	The Met. Office.
Lampeter																		Mist	George Mitchell.
Leicester			30.18	766.6	42.0	5.6		N			1		9						
Llandudno			30.20	767.1	44.3	6.8		W					10						William J. Harrison
Malta, (Mediterranean)			29.76	755.9	58.0	14.4		N			2		10						Dr. James Nicol.
Markree																			Lt. Sergt. E. Dowling.
Marlborough College																			
Moville																			
Nairn			30.11	764.8	51	10.6		WSW			1		10						
Nassau, (Bahamas)			30.06	763.5	76.0	24.4		SE			2		6						William D. Penny.
North Shields																			Surg. Maj. I. Jameson.
Nottingham			30.19	766.8	46.3	7.9		N			2		8k		NNE				John Wm. Irvine.
Osborne, New Barn Cottage																			E. J. Lowe.
Oscott, (Birmingham)			30.19	766.8	42.5	6.4		NNW			2		10						J. R. Mann.
Oxford, Radcliffe Obs			30.07	763.8	43	6.1		N			1		10					Mist	Stephen Whitty.
Plymouth			30.21	767.3	45.5	7.5		Calm			0		4						J. W. Lucas.
Portishead																			John Merrifield.
Prospect, (Bermuda)																			
Roche's Point																			
Saint Ann's Head			30.23	767.8	49	9.4		NW			1		2						W. Kennedy.
St. Helier, Jersey			30.18	766.6	43.4	6.3		NE			1		10						John C. Walker.
Sandwick Manse, Orkneys			30.05	763.3	43.6	6.4		WSW	15	6.7			10						A. P. Aury.
Scarboro'																		Rainy	Rev. Dr. Clouston.
Scutari, (Turkey)			29.79	756.7	51.2	10.7		ENE			1		10			0.51	13.0		F. Heard.
Sheffield			30.17	756.3	45.3	7.4		NE			2		8						W. H. Lyne.
Sidmouth																			W. F. Cooper.
Silloth Rectory			30.17	766.3	45.7	7.6		W			1		10			0	0		
Somerleyton, (Lowestoft)			30.17	766.3	44	6.7		ENE			1		5						Francis Redford.
Stonyhurst Observatory			30.18	766.6	43.2	6.2		SW			1		10						Rev. C. J. Steward.
Stornoway, Lews C., Hebr.			30.12	765.0	50	10.0		WNW			4		5						Stonyhurst Obs.
Strathfield Turgiss			30.19	766.8	43.0	6.1		NE			1		10						John Smith.
Streatley Vicarage			30.21	767.3	45.1	7.3		N			2		8						Charles H. Griffith.
Sumburgh Head, Shetland			29.95	760.7	42	5.6		SW			4		8						Rev. John Slatter.
Taunton College																			William Lawrence.
Thurso			[illegible]	763.8	48	8.9		W			3		8						
Truro, Royal Institution			[illegible]	765.3	50	10.0		SE			4		5						John Trotter.
Valencia			30.20	767.1	50.8	10.4		E	9	4.0			2						Royal Institution.
Wick																			Meteorological Obs.
Wisbech																			
Worthing																			S. H. Miller.
York																			William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.88	758.9	24.4	— 4.2	68	N			6		5						
Fanöe																			
Godthaab, (Greenland)			29.28	743.8	31.3	— 0.4		S			6		2						
Stykkisholm, (Iceland)			29.93	760.1	42.8	6.0	91	SE			4		8						
Thorshavn, (Faröe)			29.97	761.3	48.7	9.3	78						7						
Vestervig			30.02	762.6	31.6	— 0.2	54	NNE			6		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.59	751.6	57.9	14.4	74						8nk						Normal School.
Alençon			30.18	766.5	41.4	5.2	56	NE			2		10			0	0		Normal School.
Amiens			30.01	762.2	42.4	5.8	73	WSW			3		10			0	0		Normal School.
Beaumette, (near Angers)			30.09	764.3	41.5	5.3	54	NE	18.3	8.2			10		NE	0	0		Beaumette Observatory.
Beauvais			30.14	765.5	41.0	5.0	49	N			2		8		N	0	0		Normal School.
Besançon			30.02	762.5	37.6	3.1	60	E			3		8		NW	0	0		Normal School.
Bourges			30.10	764.6	43.5	6.4		N			4		10		N	0	0		Normal School.
Brest			30.12	765.1	44.4	6.9	51	NNE			2		5		NE	0	0		Naval Observatory.
Caen			30.17	766.2	43.5	6.4	58	NNE			4		8		NNE	0	0		Normal School.
Carcassonne																			
Chartres			30.09	764.2	38.8	3.8		N			3		10			0	0		Normal School.
Chaumont			30.02	762.5	36.7	2.6		NNW			3		5		NW	0	0		Normal School.
Le Mans			30.13	765.3	40.5	4.7	54	NNE			2		8		NE	0	0		Normal School.
Mirecourt			29.93	760.1	38.1	3.4		N			4		2k		W	0	0		Normal School.
Orleans			29.95	760.6	40.6	4.8	51	NE			3		5		NNW	0	0		Normal School.
Paris			30.09	764.2	40.6	4.8		NE			2		10k		N	0	0		National Observatory.
Parthenay			30.05	763.3	40.6	4.8	74	NE			6		5		S	0	0		
La Roche sur Yon			30.11	764.9	43.2	6.2	53	NE			2		8		SE	0	0		Normal School.
Rouen			30.12	765.0	41.2	5.1	62	NE			6		10			0	0		Normal School.
Saint Lo			30.19	766.8	40.8	4.9	67	NE			6		5		NE	0	0		Normal School.
Villefranche			30.04	762.9	38.3	3.5	92	N			2		2		SE	0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)					36.9	2.7	49	NNE	5.6	2.50			0			0	0		Père Pascall.
Mont-Louis	28.47	723.2																	—. Falguère.
Montsouris (near Paris)			30.09	764.2	41.4	5.2	44	N	6.4	2.88			9kn			0	0		Marié Davy.
Perpignan	29.97	753.6			48.9	9.4	42	WNW	16.8	7.50			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.08	764.0	42.1	5.6	37	N			3		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.09	764.2	42.3	5.7	49	NE			2		10		NE	0	0		C. Marquet.
Versailles, (near Paris)			30.08	763.9	40.6	4.8	47	NNE			3		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.87	758.6	29.8	— 1.2	65	NW			6		8			0.024	0.6		Prof. Hoh.
Berlin			29.96	760.9	29.3	— 1.5	71	N			1		10			0.051	1.3		Prof. Arndt.
Breslau			29.77	756.1	26.8	— 2.9	90	WNW			7		10			0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.01	762.3	34.9	1.6	64	N			2–5		7			0.008	0.2		A. Senz.
Cassel			29.97	761.1	33.6	0.9	69	NW			7		2			0	0		Dr. H. Möhl.
Cologne			30.09	764.4	31.1	— 0.5	87	NE			3		8			0	0	Snow	Dr. Garthe.
Emden			30.18	766.5	33.1	0.6	53	NE			2		5			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.3	36.0	2.2	46	NNE			2		4			0.039	1.0		Physical Society.
Friedrichshafen			30.03	762.8	28.4	— 2.0	90	N					5			0	0	Snow	M. Wilhelm.
Hamburg			30.03	762.8	32.9	0.5	61	NNW			6		7			0	0	Snow	W. Reinert.
Kiel			29.96	761.0	30.2	— 1.0	61	N			4		5			0	0		Prof. G. Karsten.
Königsberg			29.59	751.6	31.7	— 0.7	81	NE			2		8			0.035	0.9	Snow	Prof. E. Luther.
Köslin			29.97	761.1	28.9	— 1.7		N			7		10			0.094	2.4		Dr. T gert.
Leipsic			29.97	761.1	29.3	— 1.5	94	NW			3		10			0	0	Snow	Prof. Bruhns.
Münster			30.07	763.7	34.5	1.4	98	NE			3		5			0.016	0.4	Snow	Prof. E. Heis.
Posen			29.76	755.8	31.3	— 0.4	75	SW			8		10			0.004	0.1		Dr. Mageuer.
Strassburg, (in Alsace)			30.01	762.3	33.1	0.6	61	NE					4			0	0		Hartwig and Tülk.
Stuttgart			30.02	762.4	31.6	— 0.2	47	W					2			0.090	2.3	Snow	Mr. Würth.
Thorn			29.59	75 .5	32.9	0.5	90	N			6		8			0.051	1.3	Snow	Dr. Hesenbalg.
Treves, (Trier)			29.99	761.7	28.6	— 1.9	67	N			6		2			0.024	0.6		Prof. Flesch.
Wustrow			29.93	760.3	27.7	— 2.4	70	WNW			5		6			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.71	754.7	46.9	8.3	44	ENE	11.2	5.0			6	NW		0	0		
Mondovi			29.71	754.7	41.5	5.3	54	NW			2		5	WNW		0	0		
Genoa			29.67	753.7	54.5	12.5	81	NW	7.4	3.3			2	S		0	0		
Pavia			29.72	754.9	45.0	7.2	42	E			8		7	E		0	0		
Verona			29.65	753.1	49.3	9.6	34	E			4		3	E		0	0		
Padua			29.72	754.9	46.6	8.1	43	ENE	16.8	7.5			7	W		0	0		
Parma																			
Bologna			29.75	755.6	44.8	7.1	35	WNW			4		8	NW		0	0		
Livorno			29.63	752.6	50.5	10.3	71	N	6.3	2.8			1			0.394	10.0	Rain & hail	
Urbino			29.73	755.1	41.9	5.5	97	NE			2		10			0.217	5.5	Rain	
Ancona																			
Siena			29.62	752.4	47.8	8.8	80	SSW	0	0			10	SW		0.103	2.6		
Rome			29.66	753.4	54.9	12.7	60	S	9.4	4.2			10	SSE		0	0		
Naples, O.U.			29.70	754.4	60.1	15.6	48	SW			2		8	SW		0	0		
Lecce			29.70	754.3	56.7	13.7	61	SSW	9.8	4.4			6			0	0		
Cosenza			29.68	753.8	44.6	7.0	62	SSE			2		6	SE		0	0		
Catania, (Sicily)																			
Riposto			29.74	755.3	60.8	16.0	74	NW			2		10	SW		0	0		
Palermo			29.64	752.8	57.4	14.1	61	WSW			2		10			0	0		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.15	765.9	38.8	3.8		NE			5								
Groningen			30.02	762.6	32.9	0.5		N			3								
Helder			30.11	764.9	35.2	1.8		N			4								
Utrecht			30.07	763.7	35.6	2.0		NNE			3		8						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.97	761.2	29.5	— 1.4	96	SSE	14.8	6.6			10			0	0	Snow	
Christiania			29.89	759.1	36.0	2.2	49	SSW	8.5	3.8			3			0	0		
Tromsö			29.85	758.3	17.2	— 8.2	94	E			2		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.47	748.4			57.6	14.2	40	E	3.8	1.7			1						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.56	75[illegible].7	30.0	— 1.1	94	SW	9	4			10					Snow	Astronomical Obs.
Wilna			29.51	749.6	32.5	0.3	87	S	4	2			10					Snow	Astronomical Obs.
Dorpat			29.60	751.7	29.1	— 1.6	78	Calm	0	0			9						Physical Cabinet.
St. Petersburg			29.63	752.7	23.7	— 4.6	86	SE	11	5			10					Snow	Central Physical Obs.
Kieff			29.61	752.1	34.5	1.4	80	WNW	13	6			8						Physical Cabinet.
Nikolaiev			29.73	755.1	35.8	2.1	96	S	10.1	4.5			0						
Kertch			29.79	756.6	52.9	11.6	62	SW	16.8	7.5			4						Lagorio.
Moscow			29.98	761.6	17.2	— 8.2	88	S	13	6			10					Snow	Meteorological Obs.
Lugan			29.72	755.0	34.3	1.3	82	S	4	2			10						Meteorological Obs.
Archangel			30.12	765.0	9.7	—12.4	77	ESE	16.8	7.5			10						Ogorodnikof.
Tiflis			29.93	760.1	46.4	8.0	73	SE	7	3.5			9						Physical Obs.
Astrakhan			30.03	762.7	36.3	2.4	74	E	16	7.5			10					Rain	Sebastianof.
Kasan			30.18	774.2	11.8	—11.2	68	SSE	13	6			10						Physical Cabinet.
Orenburg			30.68	779.2	4.7	—15.2	91	NE	4	2			10						Tschernischef.
Ekaterinburg			30.67	779.0	16.3	— 8.7	94	W	10.1	4.5			0						Meteorological Obs.
Kasaly			30.38	771.6	29.1	— 1.6	82	NE	13	6			10						Bobrof.
Tashkend			30.55	775.9	47.7	8.7	72	N	7.8	3.5			10						Michelson.
Barnaul			30.23	767.8	25.2	— 3.8	82	SW	10.1	4.5			4						Meteorological Obs.
Yeniseisk			29.89	759.3	27.9	— 2.3	83	SW	13	6			10					Snow	Parks.
Irkutsk			...	...															Usolzef.
Oorga			30.05	763.2	28.2	— 2.1	57	Calm	0				0						Mossin.
Peking, (China)			30.00	761.9	42.1	5.6	46	S	7.8	3.5			0						Physical Observatory.
Nertchinsk			30.06	762.5	17.1	— 8.3	55	Calm	0	0			1						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid.

Madrid			29.78	756.3	53.6	12.0	44	NE	13.4	6.0		0	6			0	0		Royal Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.87	758.7	14.0	—10.0	55	N			2		10			0.134	3.4		
Hernosand			29.70	755.9	17.6	— 8.0	88	N			2		8			0	0		
Stockholm			29.70	755.9	17.2	— 8.2	71	NNW			4		7			0.020	0.5		
Wisby			29.73	755.1	21.2	— 6.0	100	NNE			7		10			0.051	1.3		
Sub-Series.																			
Upsala			29.82	757.3	16.3	— 8.7	72	NNW			4		4	N	N	0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.44	722.4			37.6	3.1	51	NNE			6					0	0		The Observatory.
Zurich	28.28	718.3			18.7	— 7.4	78	E			1					0.051	1.3		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.1mm.; Thermometer, —5°.3 C.; Relative Humidity, —9 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			29.80	757.0	50.9	10.5	62	S	2	1			10		SW	0.394	10.0		
Fao, (Persian Gulf)			30.18	766.5	73.0	22.8		SE			3		10						
Salonica			29.65	753.1	52.2	11.2		N			1		0						
Valona			29.65	753.2	57.6	14.2		SW			1		2						
Varna			29.80	757.0	42.8	6.0		N			4		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.10	766.8	4	—15.6		Calm	0	0		2c	0	W		0.35	8.9		
Cape Roziere, Quebec			29.71	754.6	7	—13.9	89	NW	13	5.8		4c	0	NW		0	0		
Chatham, N. B.			29.81	757.2	7	—13.9	82	NW	9	4.0		2c	0			0	0		
Charlottetown, P. E. Island			29.71	754.6	16	— 8.9	86	N	6	2.7			10s			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.14	765.5	10	—12.2	89	S	6	2.7		5k	5n	S	S	0	0		
Halifax, N. S.			29.64	752.8	15	— 9.4	73	NW	16	7.2		0	0			0.115	2.92		
Kingston, Ontario			30.17	766.3	7.5	—13.6	54	NE	9	4.0		2c	0			0.06	1.5		
Montreal, Quebec			30.08	764.0	8	—13.3	67	N	4	1.8		0	0			0	0		
Ottawa, Ontario			30.10	766.8	3	—16.1	76	W	2	0.9		0	0			0	0		
Parry Sound, Ontario			30.22	767.6	0	—17.8	80	NE	8	3.6		0	0			0	0		
Port Dover, Ontario			30.17	766.3	7	—13.9	77	N	9	4.0		2c	0	W		0.220	5.1		
Port Stanley, Ontario			30.15	765.8	7	—13.9	82	N	12	5.4		0	0			0	0		
Quebec, Quebec			29.90	761.0	— 2	—18.9	67	NW			1	0	0			0	0		
Saugeen, Ontario			30.21	767.3	6	—14.4	88	Calm	0	0		2c	0			0.01	0.3		
Stayner																0.10	2.5		
Sydney, C. B.			29.63	752.6	16	— 8.9	82	N	5	2.2			10u			0.01	0.3		
Toronto, Ontario			30.18	766.6	7	—13.9	84	N	14	6.3		5c	0	W	N	0.10	2.5		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.3	762.7	9	−12.8	100	NW	8	3.6			10s			0.33	8.4		
Albena, Mich.			30.27	768.8	1	−17.2	72	NE	3	1.3		2c	0	NE		0	0		
Atlantic City, N. J.			29.93	760.2	24	− 4.4	87	N	9	4.0			10ks			0.50	12.7	Clearing	
Augusta, Ga.			29.90	759.4	52	11.1	86	NW	8	3.6		0	0			2.20	55.9		
Baltimore, Md.			29.96	761.0	29	− 1.7	78	NE	4	1.8			10s		NW	0.45	11.4		
Barnegat, N. J.			29.93	760.2	25	− 3.9	100	N	10	4.5			10n			0.52	13.2	Threatening	
Benton, Montana			29.98	761.5	24	− 4.4	87	SW	12	5.4		0	0			0	0		
Bismarck, Dakota			30.7	763.8	20	− 6.7	70	NW	2	0.9			10s			0	0		
Boston, Mass.			29.91	760.5	21	6.1	71	NW	8	3.6			10n			0.52	13.2	Light snow	
Breckenridge, Minn.			30.20	767.1	6	−14.4	90	SE	6	2.7			10s			0	0		
Buffalo, N. Y.			30.24	768.1	11	−11.1	60	NE	8	3.6		1cs				0.03	0.8		
Burlington, Vt.			30.10	764.5	1	−17.2	71	N	4	1.8		0	2s			0.19	4.8		
Cairo, Ill.			30.18	766.6	27	− 2.8	77	Calm	0	0		1c	Haze	W		0	0		
Cape Hatteras, N. C.			29.82	757.4	48	8.9	92	NE	20	8.9			10s			0.68	17.3		
Cape Henry, Va.			29.91	759.7	38	3.3	95	NE	4	1.8			1's		NE	1.01	25.7		
Cape May, N. J.			29.93	760.2	26	− 3.3	76	N	6	2.7			10s			0.60	15.2		
Charleston, S. C.			29.85	758.2	63	17.2	88	W	6	2.7		2cs	Haze			0	0		
Cheyenne, W. T.			29.96	761.0	14	−10.0	61	NW	12	5.4		2c	0			0	0		
Chicago, Ill.			30.18	766.6	20	− 6.7	85	E	5	2.2		2c	0			0	0		
Cincinnati, Ohio			30.12	765.0	25	− 3.9	87	N	4	1.8			10ks			0.02	.5		
Cleveland, Ohio			30.13	765.3	15	− 9.4	91	N	2	0.9		2ck	1s	W		0.04	1.0		
Colorado Springs, Col.			30.02	762.5	13	−11.6	81	Calm	0	0		0	0			0	0		
Corsicana, Texas			30.13	765.3	40	4.4	82	N	9	4.0		0	0			0	0		
Davenport, Iowa			30.18	766.6	21	− 6.1	100	E	2	0.9			10n			0.02	0.5	Light snow	
Denver, Col.			30.10	764.5	20	− 6.7	70	S	6	2.7		0	0			0	0		
Detroit, Mich.			30.19	766.8	11	−11.7	70	N	4	1.8		1c	Haze			0	0		
Dodge City, Kansas			29.96	761.0	28	− 2.2	77	NW	12	5.4		0	0			0	0		
Dubuque, Iowa			30.28	769.1	16	− 8.9	83	SE	2	0.9			10n			0.04	1.0	Light snow	
Duluth, Minn.			30.28	769.1	5	−15.0	75	NE	4	1.8		8c	0			0	0		
Eastport, Me.			29.83	757.7	11	11.7	79	N	16	7.2		0	0			0.05	1.3		
Erie, Penn.			30.10	764.5	16	− 8.9	83	NE	8	3.6		0	2s			0	0		
Escanaba, Mich.			30.30	769.6	0	−17.8	69	N	6	2.7		2c	0			0	0		
Fort Gibson, I. T.			30.17	766.3	31	− 0.6	89	NW	1	0.4			10s			0	0		
Fort St. Michael, Alaska										0									
Fort Sully, D. T.			30.16	766.1	15	− 9.4	82	W	2	0.9		0	0			0	0		
Galveston, Texas			30.03	762.7	57	13.9	87	E	6	2.7		0	0			0	0		
Grand Haven, Mich.			30.22	767.6	14	−10.0	56	E	5	2.2		5cs	0			0	0		
Indianapolis, Ind.			30.14	765.5	22	− 5.6	72	NE	3	1.3		10k	5s	N	N	0	0		
Indianola, Texas			30.13	765.3	57	13.6	87	Calm	0	0		0	0			0	0		
Jacksonville, Fla.			29.89	759.2	71	21.7	90	SW	4	1.8			10s			0.34	8.6		
Keokuk, Iowa			30.12	765.0	24	− 4.4	74	Calm	0	0		0	0			0	0		
Key West, Fla.			30.02	762.5	76.2	21.8	72	SW	10	4.5		Haze	Sm'e			0	0		
Kittyhawk, N. C.			29.87	758.7	40	4.4	100	NE	24	10.7			Fog			0.30	7.6	Fog	
Knoxville, Tenn.			30.02	762.5	37	2.8	71	N	16	7.2			10ks		NE	2.06	52.1		
La Crosse, Wis.			30.21	767.3	10	−12.2	60	NE	4	1.8		5c	0	NE		0	0		
Leavenworth, Kan.			30.12	765.0	27	− 2.8	83	Calm	0	0			10s			0	0		
Lexington, Ky.			30.14	765.5	25	− 3.9	62	NE	7	3.1			10s			0.12	3.0		
Long Branch, N. J.			29.96	761.0	25	− 3.9	88	NW	6	2.7			10n			0.13	3.3	Light snow	
Louisville, Ky.			30.09	764.3	28	− 2.2	77	W	6	2.7			1cs			0	0		
Lynchburg, Va.			29.92	760.0	37	2.8	90	E	3	1.3			10s			0.60	15.2		
Malone, N. Y.																			
Marquette, Mich.			29.52	749.8	2	−16.7	72	W	4	1.8		5cs	0			0	0		
Memphis, Tenn.			30.17	766.3	34	1.1	90	NW	4	1.8			10s			0.07	1.8		
Milwaukee, Wisconsin			30.25	768.3	18	− 7.8	83	N	7	3.1		8cs	0	NW		0	0		
Mobile, Ala.			30.05	763.3	48	8.9	77	N	8	3.6		0	8s			0.03	0.8		
Montgomery, Ala.			30.05	763.3	46	7.8	77	NW	8	3.6			10s			0.25	6.3		
Morgantown, W. Virginia			30.03	762.7	-5.5	− 3.6	87	SW	4	1.8			10n			0.14	3.4	Light snow	
Mt. Washington, N. H.			29.63	752.6	− 5	−20.6	100	NW	25	11.2		8s	0	NW		0.33	8.4		
Nashville, Tenn.			30.15	765.8	32	0.0	79	NW	6	2.7			10s			0.68	17.3		
New Haven, Conn.			29.96	761.0	21	− 6.1	85	NE	16	7.2			10n			0.21	5.3	Heavy snow	
New London, Conn.			29.93	760.2	22	− 5.6	86	N	9	4.0			10n		NW	0.27	6.9	Light sn w.	
New Orleans, La.			30.04	763.0	53	11.7	67	NE	8	3.6		2k	0	NE		0	0		
Newport, R. I.																			
New York, N. Y.			29.98	761.5	17	− 8.3	83	N	16	7.2			10n			0.37	9.4	Light snow	
Norfolk, Va.			29.92	760.0	36.5	2.5	95	N	13	5.8			10s			1.13	28.7		
North Platte, Neb.			29.85	758.2	26	− 3.3	75	SW	4	1.8		2c	0	W		0	0		
Omaha, Neb.			30.16	766.1	11	−11.7	100	W	5	2.2		0	Fog			0	0		
Oswego, N. Y.			30.12	765.0	91	−12.7	74	NE	8	3.6		8cs	2s	NW		0	0		
Peck's Beach			29.95	760.7	25	− 3.9	88	NE	12	5.4			10s			0.73	18.5		
Pembina, D. T.			30.14	765.5	7	−13.9	77	SE	8	3.6			10s			0	0		
Philadelphia, Penn.			29.98	761.5	22	− 5.6	29	NE	4	1.8			10s		NE	0.12	3.0		
Pike's Peak, C. T.			29.61	752.1	− 8	−22.2	100	W	48	21.5		0	5s			0	0		
Pittsburgh, Penn.			30.06	763.5	17	− 8.3	83	NW	6	2.7			10n			0	0	Light snow	
Port Huron, Mich.			30.19	766.8	12	−11.1	89	NE	9	4.5		5c	0			0.05	1.3		
Portland, Maine			29.94	760.5	17	− 8.3	67	NW	5	2.2		10ck	Haze	W		0.21	5.3		
Portland, Or.			29.85	758.2	45	7.2	84	S	20	8.9			10n			0.73	18.5	Heavy rain	
Punta Rassa, Fla.			30.02	762.2	76.6	24.8	78	SE	11	4.9		0	10ks			0	0		
Rochester, N. Y.			30.12	765.0	11	−11.7	60	N	8	3.6		2c	0			0.08	2.0		
Salt Lake City, Utah			30.11	764.8	26	− 3.3	76	S	1	0.4		2c	0			0	0		
Sandy Hook, N. J.			29.94	760.5	21	− 6.1	85	N	12	5.0			10n		N	0.17	4.3	Light snow	
San Diego, Cal.			30.11	764.8	50	10.0	86	NE	4	1.8			10s			0	0		
San Francisco, Cal.			30.17	766.3	45	7.2	84	Calm	0	0		Haze	Haze			0	0		
Santa Fe, N. M.			29.79	756.7	27	− 2.8	53	NW	8	3.6		0	0			0	0		
Savannah, Georgia			29.88	758.9	65	18.3	68	NW	8	3.6		2k	0	NW		0	0		
Shreveport, La.			30.16	766.1	39	3.9	100	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.98	761.5	18	− 7.8	67	N	12	5.4			10n			0.33	8.4	Light snow	
St. Louis, Mo.			30.18	766.6	25	− 3.9	75	Calm	0	0		0	0			0	0		
St. Marks, Fla.			29.94	760.5	59	15.0	76	N	12	5.4		5k	0	W		0.02	0.5		
St. Paul, Minn.			30.17	766.3	4	−15.6	74	NE	1	0.4		10c	0			0	0		
St. Paul's Island, Alaska			30.66	778.7	32	0.0	79	WSW	17	7.6		c	10k	WNW		0	0		
Squan Beach, N. J.			29.95	760.7	22	− 5.6	85	N	6	3.6			10n			0.38	9.7	Light snow	
Toledo, Ohio			30.09	764.3	14	−10.0	81	NW	4	1.8		0	0			0.08	2.0		
Tybee Island, Ga.			29.89	759.2	63	17.2	80	NW	14	6.2		Haze	2ks			0	0		
Vicksburg, Miss.			30.15	765.8	43	6.1	75	N	2	0.9			10s			0.07	1.8		
Virginia City, Mon.			29.66	753.4	19	− 7.2	69	E	2	0.9		Haze	0			0	0		
Washington, D. C.			29.98	761.5	29	− 1.7	77	N	4	1.8			10s			0.17	4.3		
Wilmington, N. C.			29.80	756.9	62	16.7	94	W	4	1.8		2c	Fog	W		0.22	5.6		
Wood's Hole, Mass.			29.90	759.4	27	− 2.8	77	N	8	3.6			10s			0.49	12.4		
Wytheville, Va.			29.71	754.6	36	2.2	70	W	6	2.7		10k	0	W		0.56	14.2		
Yankton, D. T.			30.24	768.1	10	−12.2	79	SW	4	1.8			10n		W	0.06	1.5		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	79	26.1		E	2	0.9		5ck	5ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.01	762.2	74	23.3		E				10k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	81	27.2	76	E	3.6	1.6		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	78	25.6		SE	2	0.9		2k	0	NE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.29	769.4			76	24.4		SE	2	0.9		1ck	2k	SW		0	0		W. S. Cameron.
Santiago de Cuba, , W. I.			29.87	758.7	76	24.4	76	Calm	0	0		0	Haze			0	0		Robert Mason.
St. Georges, Bermudas			30.02	762.5	69	20.6	90	SW	45	20.1		1s	8k			0.010	0.2		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.9	62	16.7		Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.01	762.2	60	15.6	88	S	1.2	0.5		1c	0	S		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.14	765.5	0.5	−17.5	100	S	10	4.5		4c	Haze	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.04	763.0															C. Partridge.
St. Johns, Newfoundland			29.76	755.9	21	− 6.1	100	NW					10n			0	0	Snow	John Delaney.
St. Johns, Porto Rico, W. I.			30.12	765.1	77.0	25.0	65	E			3	1ck	0	W		0	0		Leon M. Acuña.
Ellyria, Ohio			29.14	765.5	14	10.0	80	NE	4	1.8			0ks			0	0		H. M. Redington.
Indianola, Iowa	29.22	742.2			33	0.6		SE					8n		W	0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica, W. I., is about 2895 feet, or 882 meters, above sea-level.

The rain-fall at St. Johns, Porto Rico, is measured at 5:15 p. m., of the same day.

Note.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 22, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T.
2:30 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.06	761.0															Charnot.
Algiers			29.80	759.2	55.4	13.0	88	Calm			0		8			0.548	13.9	Fog	Poter.
La Calle			29.77	756.1															Kuntz.
Tunis			29.74	755.4	53.2	11.8	73	NW			4		10			0.024	0.6	Rain	Jacques.
Sfax			29.67	753.5															Chauvey.
Saïda			29.92	760.4	52.9	11.6		NNW			1		6			0	0		Grosjean.
Tebessa			29.74	756.2															Colin.
Geriville			29.88	759.0	45.0	7.2		NW			3		6			0	0		Bernadach.
Laghouat			29.85	758.1	53.6	12.0	43	NW			3		3			2.244	57.0	Heavy rain	Poinsignon.
Biskra			29.78	756.4	63.6	17.6	33	NW			3		4			0.480	12.2	Heavy rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.93	760.3	37.2	2.9	78	NE			4		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.93	760.1	24.3	— 4.3	63	W			4		2			0	0		I. R. Observatory.
Eperies			29.86	758.5	34.2	1.2	78	S			1		6			0	0		Julius Mikolik.
Gratz			29.93	760.3	34.0	1.1	61	SW			5		0			0	0		Andreas Rospini.
Hermannstadt			29.86	758.4	36.3	2.4	54	WNW			1		5			0.029	0.75		Prof. Reissenberger.
Kremsmünster			29.98	761.5	28.9	— 1.8	68	Calm			0		3			0	0		Prof. C. Wagner.
Lemberg			29.74	755.3	28.4	— 2.0	78	W			4		5			0.024	0.6	Snow	Dr. T. Stanecki.
Nyiregyhaza			29.76	755.9	36.0	2.2	89	SE			1		2			0	0		Habzsuda Daniel.
Pola			29.83	757.7	41.0	5.0	25	ENE			4		0			0	0		I. R. Hydrographic Office
Szegedin			29.89	759.3	35.8	2.1	56	SW			1		3			0	0		Karl Stancel.
Trieste			29.87	753.8	41.0	5.0	27	ENE			2		0			0	0		Prof. V. Farolfi.
Vienna			29.94	760.4	30.7	— 0.7	63	WNW			2		7			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.75	755.6			32.7	0.4	95	WSW			2		10		SW	0.059	1.50		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.14	765.5	48.5	9.2		N	16	7.2			9			0.020	0.51	Fog	William Boswell.
Annanhill																			W. H Dunlop.
Ardrossan			30.18	766.6	53	11.7		NNW			3		6						William McNeil.
Armagh Observatory			30.26	768.6	50.0	10.0		N	13	5.8			10						Stillman Call
Banbridge																			
Barnstaple																			
Battersea																			
Bidston, Liverpool Obs			30.16	766.1	45.7	7.6		WNW			2		8					Mist	John Hartnup.
Birr Castle			30.28	769.1	51.6	10.9		NNW			1		10						J. Dreyer.
Bradford			30.10	764.5	48.9	9.4		N			2		9						J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	77.6	25.3		NE			4		7						F. H Hunt.
Bywell																			
Cambridge Observatory			30.07	763.8	47.0	8.3		N			2		4						H. Todd.
Cape Town, Cape Colony			29.86	758.4	71	21.7		NNW			2		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.87	758.7			73.9	23.3	61	NW	16	7.2			1						The Royal Observatory.
Cardington			30.12	765.0	48.0	8.9		NE					10						John McLaren.
Carlisle			30.16	766.1	52.0	11.1		N					10			0.01	0.3		T Bell, for J. Cartwell.
Chatham			30.04	763.0	47.4	8.6		NE			2		10					Rainy	James Conroy.
Cochyfoel Farm																			
Colombo, (Ceylon)			29.94	760.5	80.0	26.7		SE			1		6						Sgt. W. F. Hopkins
Dartmoor			30.24	765.5	42	5.6		NW			1		10						R. E. Power.
Donaghadee			30.21	767.2	51	10.6		NW			3		10						J. Mac Gowan, Jr.
Dover			30.02	765.0	48	7.8		N			3		9						J. Costello.
Dublin																			
Durham Observatory			30.11	764.8	45.6	7.6		NNE					10						G. D. Goldney.
Eccles, (near Manchester)			30.13	765.3	49.9	9.9		NW	0.6	0.3			10						Thomas Mackereth.
Falmouth Observatory			30.19	766.8	48.1	8.9		NNW	17	7.6			10						The Falmouth Obs.
Fort Napier, Natal			29.68	753.9	86.0	30.0		E			2		1						Pvt. G. Salmon.
Galway			30.27	768.8	53	11.7		W			1		2						Bernard G. Clare.
Gibraltar, (Mediterranean)			29.90	759.4	64.5	18.1		SW			3		4						Sergt. E. G. Baker.
Glasgow Observatory			30.15	765.8	53.0	11.7		N			2		8						James Gray.
Gloucester, the Asylum																			F. Toller.
Great Yarmouth			30.00	762.0	43	6.1		NNW			4		10						G. T. Watson.
Greenwich Royal Obs			30.07	763.8	48.6	9.2		NNW			2		10					Drizzling	The Royal Observatory.
Guernsey			30.16	766.1	47.5	8.6		NW			2		7						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs			30.09	764.3	48.0	8.9		NNE			0		10						F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.91	759.7	16.0	-8.9		NE			3		0						Corp'l J. Y. Thompson.
Helston			30.16	766.1	52	11.1		NE			3		8						W. B. Moyle.
Holyhead			30.17	766.3	47	8.3		NNE			3		6					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.08	764.0	49.1	9.5		NNW	12	5.4			9						The Met. Office.
Kingstown			30.24	768.0	49	9.4		NNW			4		10						George Mitchell.
Lampeter																			
Leicester			30.10	764.5	48.5	9.2		N			1		10						William J. Harrison
Llandudno			30.17	766.3	50.2	10.1		NW					9						Dr. James Nicol.
Malta, (Mediterranean)			29.68	753.9	60.6	15.9		NW			1		3						Lt. Sergt. E. Dowling.
Markree																			
Marlborough College																			
Moville																			
Nairn			30.16	766.1	49	9.4		Calm			0		10					Drizzling	William D. Penny.
Nassau, (Bahamas)			30.02	762.5	75.2	24.0		S			4		5					Threatening	Surg. Maj. I. Jameson.
North Shields			30.15	765.8	45	7.2		NNE			4		8						John Wm. Irvine.
Nottingham			30.13	765.3	51.0	10.6		N			4		9k		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, (Birmingham)			30.11	764.8	48.9	9.4		NNW			3		10					Fog	Stephen Whitty.
Oxford, Radcliffe Obs			30.09	764.3	51	10.6		NW			2		10						J. W. Lucas.
Plymouth			30.17	768.3	48	8.9		Calm			0		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Roche's Point			30.24	768.1	50	10.0		N			3		8						W. Kennedy.
Saint Ann's Head			30.20	767.1	48	8.9		N			2		6						John C. Walker.
St. Helier, Jersey			30.16	766.1	49.8	9.9		NNW			1		8						A. P. Amy.
Sandwick Manse, Orkneys			30.17	768.3	46.1	7.8		NW	9	4.0			10						Rev. Dr. Clouston.
Scarboro'			30.09	764.3	44.4	6.9		N			3		10						F. Heard.
Scutari, (Turkey)			29.93	752.6	43.	6.3		NNE			4		10			2.200	55.90	Rainy	W. H. Lyne.
Sheffield			30.10	764.5	49.5	9.7		NNE			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.15	765.8	54.2	12.3		NW			1		10						Francis Redford.
Somerleyton, (Lowestoft)			30.01	762.2	43	6.1		WNW			2		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.14	765.5	49.3	9.6		N			1		10						Stonyhurst Obs.
Stornoway, Lews C., Hebr.			30.20	767.1	51	10.6		NW			4		7						John Smith.
Strathfield Turgiss			30.10	764.5	51	10.6		W			1		8						Charles H. Griffith.
Streatley Vicarage			30.12	765.0	52.7	11.5		NW			4		10						Rev. John Slatter.
Sumburgh Head, Shetland			30.08	764.0	45	7.2		WNW			4		8						William Lawrence.
Taunton College																			
Thurso			30.16	766.1	47	8.3		NW			1		9						John Trotter.
Truro Royal Institution			30.14	765.5	52	11.1		N			2		7						Royal Institution.
Valencia			30.24	768.1	50.3	10.1		NNE	10	4.5			8						Meteorological Obs.
Wick																			
Wisbech																			S. H. Miller.
Worthing			30.10	764.5	50.9	10.5		N			1		6						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			29.82	757.5	24.8	-4.0	64	NE			7		1						
Fanöe			29.88	758.9	32.0	0.0	92	ENE			6		7						
Godthaab, (Greenland)			29.40	746.8	15.8	-9.0		NNE			4		10					Snow	
Stykkisholm, (Iceland)			29.74	755.5	46.6	8.1	91	S			4		10					Rain	
Thorshavn, (Faröe)			30.09	764.3	49.5	9.7	80	WSW			2		8						
Vestervig			29.94	760.5	28.0	-2.2	83	E			6		2						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Directions. Upper From—	Clouds. Directions. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.63	752.7	52.2	11.2	77						8ks						Normal School.
Alençon			30.14	765.5	48.2	9.0	51	NE			2		2n			0	0		Normal School.
Amiens			30.23	767.8	41.6	5.4	66	NE			5		10			0	0		Normal School.
Beaumette, (near Angers)			30.13	765.4	47.3	8.5	55	N	6.0	2.7			5		NNE	0	0		Beaumette Observatory.
Beauvais			30.08	763.9	43.5	6.4	46	NW			2		10		NE	0	0		Normal School.
Besançon			30.05	763.3	36.7	2.6	50	NE			4		0			0	0		Normal School.
Bourges			30.14	765.6	45.0	7.2		N			4		10		N	0	0		Normal School.
Brest			30.16	766.0	48.7	9.3	63	NW			2		10		NNW	0	0		Naval Observatory.
Caen			30.13	765.2	47.1	8.4	61	N			3		5		N	0	0		Normal School.
Carcassonne																			
Chartres			30.10	767.6	43.7	6.5		N			2		9c		N	0	0		Normal School.
Chaumont			30.07	763.6	37.0	2.8		NW			3		0			0	0		Normal School.
Le Mans			30.16	766.5	39.9	4.4	59	NW			2		2		NE	0	0		Normal School.
Mirecourt			30.00	762.0	37.0	2.8		NNE			4		2k		SW	0	0		Normal School.
Orleans			30.11	764.8	42.2	6.2	44	N			2		0			0	0		Normal School.
Paris			30.09	764.2	42.6	5.9		W			2		10k			0	0		National Observatory.
Parthenay			30.12	765.0	51.8	11.0	57	NW			4		0			0	0		
La Roche sur Yon			30.18	766.6	45.	7.2	42	NE			2		1		SW	0	0		Normal School.
Rouen			30.08	763.9	46.4	8.0	61	W			2		10		NE	0.055	1.4		Normal School.
Saint Lo			30.28	769.2	50.0	10.0	44	NW			3		5		N	0	0		Normal School.
Villefranche			30.03	762.8	43.0	6.1	9	NE			1		2			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Directions. Upper From—	Clouds. Directions. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée (Senegambia)																			Père Parcall.
Mont-Louis	24.58	624.4			30.9	— 0.9	56	NW	12.3	5.5			0			0	0		— Fâlguère.
Montsouris (near Paris)			30.08	763.9	42.4	5.8	49	NW	0.9	0.42			0			0	0		Marié Davy.
Perpignan	29.78	756.3			46.0	7.6	35	WNW	18.6	8.33			2			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.08	764.1	43.7	6.5	44	W			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.12	765.1	43.2	6.2	46	NE			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.08	764.0	42.4	5.8	58	NNW			2		10			0	0		Dr. A. Bérigny.
Zi-Ka-Wei (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet; and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Directions. Upper From—	Clouds. Directions. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.99	761.7	32.2	0.1	67	W			3		7			0	0	Snow	Prof. Heis.
Berlin			29.87	758.8	34.7	1.5	68	SW			3		10			0	0		Prof. Arndt.
Breslau			29.89	759.2	28.6	— 1.9	76	NW			5		9			0	0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.00	761.9	37.0	2.8	54	S			2.5		3			0	0		A. Sens.
Cassel			29.89	757.0	30.0	— 1.1	77	S			4		10			0.012	0.3		Dr. H. Möhl.
Cologne			29.81	757.1	33.8	1.0	77	SW			2		4			0	0		Dr. Garthe.
Emden			29.8	758.2	40.1	4.5	90	WNW			2		6			0	0		Prof. Prestel.
Frankfort on the Main			30.07	763.8	37.6	3.1	50	SW			2		9			0	0		Physical Society.
Friedrichshafen			30.06	763.4	30.2	— 1.0	80	SW					0			0.110	2.8		M. Wilhelm.
Hamburg			29.79	756.6	33.4	0.8	93	SW			5		10			0.055	1.4	Snow	W. Reinert.
Kiel			29.82	757.4	35.2	1.8	78	SW			1		10			0.063	1.6		Prof. G. Karsten.
Königsberg			29.90	754.1	24.8	— 4.0	86	N			2		10			0.276	7.0	Snow	Prof. E. Luther.
Köslin			30.0	761.9	26.2	— 3.2		W			2		10			0.075	1.9		Dr. T gert.
Leipsic			29.93	760.1	32.0	0.5	71	SW			4		9			0.083	2.1		Prof. Bruhns.
Münster			29.81	757.2	32.0	0.5	93	NW			3		10			0.043	1.1	Snow	Prof. E. Heis.
Posen			29.86	758.5	33.6	0.9	88	SW			5		10			0.067	1.7		Dr. Mager er.
Strassburg, (in Alsace)			30.02	762.5	34.8	1.5	49	SE					1			0.087	2.3		Hartwig and Tölle.
Stuttgart			29.97	761.3	34.7	1.5	50	W					3			0	0	Snow	Mr. Würth.
Thorn			29.95	760.8	38.1	3.4	49	W			7		10			0.016	0.4		Dr. [illegible]enbalg.
Treves, (Trier)			29.79	756.6	28.2	— 2.1	65	WSW			5		10			0	0		Prof. Hesch.
Wustrow			29.79	756.6	31.1	— 0.5	96	WSW			3		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Directions. Upper From—	Clouds. Directions. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Monzalleri			29.90	759.5	41.5	5.3	45	WNW	1.8	0.8			5	W		0	0		
Mondovi			29.89	759.3	36.7	2.6	53	NW			4		1	NNW		Blank	Blank		
Genoa			29.83	757.6	50.2	10.1	18	NE	8.1	3.6			0			0	0		
Pavia			29.89	759.1	42.6	5.9	25	NE			2		1	NE		0	0		
Verona			29.85	758.1	46.6	8.1	22	E			8		0	E		0	0		
Padua			29.87	758.6	40.8	4.9	36	NE	8.7	3.9			0			0	0		
Parma																			
Bologna			29.87	758.7	41.5	5.3	36	NE			6		3	N		0	0		
Livorno			29.78	756.4	46.8	8.2	30	ENE	15.4	6.9			3			0	0		
Urbino			29.87	758.8	34.7	1.5	89	NNE			4		2			0	0		
Ancona																			
Siena			29.77	756.2	42.4	5.8	33	E	8.1	3.6			1			0	0		
Rome			29.69	754.2	51.1	10.6	70	SE	4.0	2.2			0	W		0.067	1.7		
Naples, O. U.			29.68	753.8	55.8	13.2	39	NE			2		3	N		0	0		
Lecce			29.62	752.4	52.9	11.6	66	NE	15.0	6.7			6			0	0		
Cosenza			29.61	752.0	58.1	14.5	56	NW			2		4	SE		0	0		
Catania, (Sicily)																			
Liposto			29.66	753.3	56.8	13.8	76	NE			2		10			0	0		
Palermo			29.57	751.0	54.7	12.6	61	N			2		10			0	0		
Sub-Series.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.96	761.0	41.4	5.2		NW			4								
Groningen			29.73	755.2	38.1	3.4		N			5								
Helder			29.85	758.3	39.7	4.3		NNW			4								
Utrecht			29.82	757.4	41.0	5.0		NNW			4		8						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.93	760.1	40.1	4.5	66	NNW	6.0	2.7			0			0	0		
Christiania			30.03	762.7	26.6	— 3.0	57	ENE	7.6	3.4			7			0.031	0.8		
Tromsö			29.97	761.0	21.0	— 6.1	93	SE			6		0			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.57	751.1			55.0	12.8	39	ENE	13.7	6.1			1						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.82	757.3	26.8	— 2.9	85	WSW	9	4			10						Astronomical Obs.
Wilna			29.71	754.5	22.5	— 5.3	65	NW	7.8	3.5			4						Astronomical Obs.
Dorpat			29.65	753.2	23.5	— 4.7	76	NNE	9	4			5						Physical Cabinet.
St. Petersburg			29.63	752.6	18.5	— 7.5	83	NNE	7	3			10					Snow	Central Physical Obs.
Kiev			29.83	757.7	31.6	— 0.2	68	WSW	11	5			6						Physical Cabinet.
Nikolaiev			29.91	759.7	34.9	1.6	69	SSW	7.8	3.5			7						
Kertch			29.69	754.0	35.8	2.1	80	NNE	13	6			10					Rain	Lagorio.
Moscow			29.69	751.8	26.6	— 3.0	76	WSW	13	6			10					Snow	Meteorological Obs.
Lugan			29.85	758.3	35.6	2.0	69	E	7.8	3.5			10						Meteorological Obs.
Archangel			29.91	759.8	17.6	— 8.0	88	ENE	13	6			10						Ogorodnikof.
Tiflis			29.94	760.5	64.0	17.8	37	NE	4	2			5						Physical Obs.
Astrakhan			30.08	764.1	46.9	8.3	66	NE	4	2			10						Sebastianof.
Kasan			30.02	762.5	19.9	— 6.7	97	S	20	9			10						Physical Cabinet.
Orenburg			30.22	767.6	17.2	— 8.2	82	NE	7.8	3.5			10						Tscherniscbef.
Ekaterinburg			30.72	780.3	14.0	—10.0	48	SE	13	6			7						Meteorological Obs.
Kasaly			29.56	758.5	28.2	— 2.1	83	ENE	7.8	3.5			10						Bobrof.
Tashkend			30.08	763.9	60.6	15.9	57	Calm	0	0			7						Michelson.
Barnaul			30.61	777.5	— 0.4	—18.0	73	WSW	13	6			4						Meteorological Obs.
Yeniseisk			30.15	765.8	17.2	— 8.2	71	W	7.8	3.5			10						Sparks.
Irkutsk																			Usolzef.
Oorga			29.70	754.3	34.5	1.4	57	E	16.8	7.5			10					Snow	Mossin.
Peking, (China)			30.09	764.2	40.8	4.9	58	SSW	10.1	4.5			0						Physical Observatory
Nertchinsk			29.99	761.7	16.9	— 8.4	64	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.92	760.0	47.8	8.8	87	NE	9.6	4.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.05	763.3	13.0	−10.2	67	NE			2		10			0	0		
Hernosand			30.23	767.7	16.9	− 8.4	64	NE			2		3			0	0		
Stockholm			29.84	758.0	12.4	−10.9	69	N			7		4			0.004	0.1		
Wisby			29.76	756.0	18.0	− 7.8	94	NNW			7		10			0.067	1.7		
Sub-Series.																			
Upsala			29.94	760.5	11.3	−11.5	78	N			6		3	NNE		0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.52	724.4			35.8	2.1	56	NNE			2		0			0	0		The Observatory.
Zurich	28.28	718.3			30.2	− 1.0	51	NE			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.1mm.; Thermometer, —6°.4 C.; Relative Humidity, —4 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.90	759.4	63.7	17.6	74	NE			2		10					Rain	
Constantinople			29.65	753.2	43.2	6.2	94	N	22	10			10		N	2.478	61.4	Rainy	
Fao, (Persian Gulf)			30.08	764.0	78.3	25.7		NW			3		10						
Salonica			29.57	751.0	43.7	6.5		NE			4		10						
Valona			29.52	749.8	55.	13.0		NW			3		8						
Varna			29.76	756.5	41.0	5.0		NE			3		10					Fog	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.30	769.6	7	−13.9		Calm	0	0		0	0			0	0		
Cape Rosiere, Quebec			29.92	760.0	11	−11.7	90	N	15	6.7		5k	5k	N	N	0	0		
Chatham, N. B.			29.97	761.2	11	−11.7	89	NW	11	4.9		2c	8ks	W	W	0	0		
Charlottetown, P. E. Island			29.91	759.7	16	− 8.9	91	NW	8	3.6			10n			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			29.98	761.5	20	− 6.7	97	S	20	8.9			10n			0	0		
Halifax, N. S.			29.83	757.7	13.0	−10.6	68	NW	5	2.2		0	0			0	0		
Kingston, Ontario			30.31	769.9	6.8	−14.0	65	N	2	0.9		0	0			0	0		
Montreal, Quebec			30.19	766.8	6	−14.4	54	N	8	3.6		0	0			0	0		
Ottawa, Ontario			30.28	769.1	2	−16.7	59	W	12	5.4		0	0			0	0		
Parry Sound, Ontario			30.41	772.4	−10	−23.3	59	Calm	0	0		0	0			0	0		
Port Dover, Ontario			30.30	771.9	8	−13.3	78	NW	6	2.7		0	0			0	0		
Port Stanley, Ontario			30.37	771.4	7	−13.9	95	N	10	4.5		0	0			0	0		
Quebec, Quebec			30.09	764.3	0	−17.8	70	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.40	772.1	− 7	−21.7	80	Calm	0	0		0	0			0	0		
Stayner			30.38	771.6	7	−13.9	68	Calm	0	0		0	0			0	0		
Sydney, C. B.			29.83	757.7	21	− 6.1	64	W	8	3.6		0	2ks		W	0	0		
Toronto, Ontario			30.36	771.1	9	−12.8	72	NW	9	4.0		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer: Corrected or instrumental errors. Inches.	Barometer: Corrected or instrumental errors. Millimeters.	Barometer: Reduced to sea-level. Inches.	Barometer: Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind: Direction. From—	Wind: Velocity. Miles per hour.	Wind: Velocity. Meters per second.	Force. 0—10.	Clouds: Amount. Up'er 0—10.	Clouds: Amount. Low'r 0—10.	Clouds: Direction. Upper. From—	Clouds: Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.17	766.3	28	— 2.2	89	NW	1	0.4		0	0			0	0		
Alpena, Mich.			30.42	772.7	6	—14.4	52	NW	6	2.7		0	0			0	0		
Atlantic City, N. J.			30.20	767.1	18	— 7.8	52	NW	12	5.4		0	0			0	0		
Augusta, Ga.			30.23	767.8	42	5.6	66	NW	7	3.1		0	0			0	0		
Baltimore, Md.			30.27	768.8	23	— 5.0	60	NE	4	1.8		0	0			0	0		
Barnegat, N. J.			30.18	766.6	19	— 7.2	67	NW	16	7.2		0	0			0	0		
Benton, Montana			29.72	754.9	31	— 0.6	68	SW	2	0.9			10s			0	0		
Bismarck, Dakota			29.66	753.4	15	— 9.4	65	SE	5	2.2		5k	0	S		0	0		
Boston, Mass.			30.07	763.8	15.5	— 9.2	57	NW	10	4.5		0	0			0	0		
Breckenridge, Minn.			30.17	766.3	5	—15.0	90	SE	20	8.9		10k	0	SE		0	0		
Buffalo, N. Y.			30.35	770.9	3	—16.1	73	W	4	1.8		0	0			0	0		
Burlington, Vt.			30.20	767.1	5	—15.0	75	N	5	2.2		0	2s			0	0		
Cairo, Ill.			30.37	771.4	34	1.1	70	S	2	0.9		8k	0	NW		0.01	0.3		
Cape Hatteras, N. C.			30.08	764.0	34	1.1	79	NE	20	8.9			10n		NE	0	0	Light snow	
Cape Henry, Va.			30.20	767.1	31	— 0.6	68	N	15	6.7		2c	5s	NW	N	0	0		
Cape May, N. J.			30.21	767.3	19	— 7.2	69	NW	20	8.9		0	0			0	0		
Charleston, S. C.			30.13	765.3	49	9.4	64	N	10	4.5		8 k	0	NE		0	0		
Cheyenne, W. T.			29.78	756.4	31	— 0.6	59	SW	12	5.4		0	2s			0	0		
Chicago, Ill.			30.41	772.4	22	— 5.6	72	N	4	1.8		0	0			0	0		
Cincinnati, Ohio			30.37	771.4	26	— 3.3	88	NE	4	1.8		0	Sm'e			0	0		
Cleveland, Ohio			30.39	771.9	8.5	—13.1	78	NW	2	0.9		0	0			0	0		
Colorado Springs, Col.			29.84	757.9	30	— 1.6	57	N	4	1.8		0	0			0	0		
Corsicana, Texas			30.34	770.6	41	5.0	73	E	6	2.7		2c	0			0	0		
Davenport, Iowa			30.42	772.7	26	— 3.3	83	Calm	0	0			1s			0.03	0.8		
Denver, Col.			29.87	758.7	32	0.0	50	W	5	2.2		0	0			0	0		
Detroit, Mich.			30.42	772.7	7	—13.9	77	N	2	0.9		Haze	Sm'e			0	0		
Dodge City, Kansas			29.77	756.1	32	0.0	69	S	12	5.4		0	0			0	0		
Dubuque, Iowa			30.38	771.6	23	— 5.0	86	S	4	1.8			10s			0.06	1.5		
Duluth, Minn.			30.39	771.9	— 5	—20.6	63	NE	4	1.8		0	0			0	0		
Eastport, Me.			30.05	763.5	11	—11.7	79	NE	15	6.7		0	0			0	0		
Erie, Penn.			30.35	770.9	11	—11.7	79	Calm	0	0		0	Fog			0	0		
Escanaba, Mich.			30.43	772.9	0	—17.8	69	Calm	0	0		0	0			0	0		
Fort Gibson, I. T.			30.39	771.9	35	1.7	52	NE	3	1.3		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Smith, Ark.			29.83	757.7	22	— 5.6	79	SE	16	7.2		0	5s			0	0		
Galveston, Texas			30.33	770.4	56	13.3	87	E	4	1.8		0	0			0	0		
Grand Haven, Mich.			30.43	772.9	12	—11.1	61	N	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.39	771.9	22	— 5.6	85	Calm	0	0		0	Sm'e			0.04	1.0		
Indianola, Texas			30.33	770.4	57	13.9	81	NE	12	5.4		0	0			0	0		
Jacksonville, Fla.			30.18	766.6	53	11.7	43	NW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.25	770.9	25	— 3.9	75	SE	6	2.7			Fog			0	0	Fog	
Key West, Fla.			30.08	764.0	73.9	23.3	81	N	20	8.9			10ks			0.02	0.5	Threatening	
Kittyhawk, N. C.			30.16	766.1	32	0.0	70	NE	32	14.3			10ks		NE	0	0		
Knoxville, Tenn.			30.32	770.1	29	— 1.7	67	N	16	7.2		0	5ks			0	0		
La Crosse, Wis.			30.38	771.6	10	—12.2	60	N	3	1.3		Haze	0			0	0		
Leavenworth, Kan.			30.31	769.9	29	— 1.7	77	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.38	771.6	25	— 3.9	62		7	3.1		5k	0	N		0	0		
Long Branch, N. J.			30.19	766.6	22	— 5.6	72	NW	15	6.7		0	0			0	0		
Louisville, Ky.			30.35	770.9	28	— 2.2	77	W	4	1.8			10s						
Lynchburg, Va.			30.24	768.1	31	— 0.6	84	E	3	1.3			10n			0.02	0.5	Snow	
Malone, N. Y.																			
Marquette, Mich.			30.39	771.9	10	—12.2	79	Calm	0	0		0	0			0	0		
Memphis, Tenn.			30.37	771.4	37	2.8	90	SW	1	0.4		0	0			0	0		
Milwaukee, Wisconsin			30.47	773.9	13	—10.6	80	NW	3	1.3		0	Fog			0	0	Fog	
Mobile, Ala.			30.39	771.1	43	6.1	66	N	6	2.7		0	Haze			0	0		
Montgomery, Ala.			30.37	771.4	38.5	3.6	77	N	2	0.9		0	Haze			0	0		
Morgantown, W. Virginia			30.35	770.9	19	— 7.2	68	Calm	0	0		0	Haze			0.01	0.3		
Mt. Washington, N. H.			29.69	754.1	— 5	—20.6	100	NW	45	20.1		0	5s			0	0		
Nashville, Tenn.			30.36	771.1	32	0.0	89	W	1	0.4			10n			0.05	1.3	Light snow	
New Haven, Conn.			30.15	765.8	16	— 8.9	66	N	6	2.7		0	0			0.01	0.3		
New London, Conn.			30.13	765.3	24	— 4.4	48	N	5	2.2		0	0			0.01	0.3		
New Orleans, La.			30.33	770.4	48	8.9	63	NE	8	3.6		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			30.20	767.1	17	— 8.3	59	NW	8	3.6		0	0			0	0		
Norfolk, Va.			30.21	767.6	30	— 1.1	78	NE	16	7.2		5c	2k	N	N	0.01	0.3		
North Platte, Neb.			29.65	753.1	29	— 1.7	77	SE	10	4.5		2cs	0			0	0		
Omaha, Neb.			30.26	768.6	24	— 4.4	87	SE	10	4.5		2c	0	W		0	0		
Oswego, N. Y.			30.40	769.6	11	—11.7	58	WNW	1	0.4		Haze	Fog			0	0		
Peck's Beach			30.21	767.3	17	— 8.3	85	N	24	10.7		0	2s			0	0		
Pembina, D. T.			29.99	761.7	20	— 6.7	85	SE	20	8.9			10s			0	0		
Philadelphia, Penn.			30.26	768.6	16	— 8.9	50	N	10	4.5		0	0			0	0		
Pike's Peak, C. T.			29.73	754.9	7	—13.9	100	NW	48	21.5		0	0			0	0		
Pittsburgh, Penn.			30.36	771.1	13	—10.6	81	NW	2	0.9		2cs	Sm'e			0.01	0.3		
Port Huron, Mich.			30.42	772.7	8	—13.3	78	NW	5	2.2		0	0			0	0		
Portland, Maine			30.08	764.0	14	—10.0	46	N	8	3.6		0	Haze			0	0		
Portland, Or.			29.97	761.2	38	3.3	90	SW	10	4.5			10n			0.66	16.8	Light rain	
Punta Rassa, Fla.			30.14	765.5	62.8	17.5	61	N	24	10.7		0	0			0.13	3.3		
Rochester, N. Y.			30.31	769.9	8	—13.3	89	W	4	1.8		0	Sm'e			0	0		
Salt Lake City, Utah			29.84	757.9	40	.4	56	SE	4	1.8			10s			0	0		
Sandy Hook, N. J.			30.18	766.6	18.5	— 7.5	68	NW	12	5.4		0	Haze			0	0		
San Diego, Cal.			30.10	764.5	53	11.7	86	NE	4	1.8			10s			0	0		
San Francisco, Cal.			30.17	766.3	58	14.4	86	SW	4	1.8			10s			0	0		
Santa Fe, N. M.			29.79	756.7	22	— 5.6	45	Calm	0	0		0	0			0	0		
Savannah, Georgia			30.17	766.3	47	8.3	48	W	16	7.2		0	0			0	0		
Shreveport, La.			30.38	771.6	40	4.4	91	Calm	0	0		0	0			0	0		
Springfield, Mass.			30.14	765.5	9	—12.8	57	Calm	0	0		Sm'e	0			0.02	0.5		
St. Louis, Mo.			30.39	771.9	32	0.0	89	E	4	1.8			10s			0	0		
St. Marks, Fla.			30.25	768.3	45	7.2	54	N	16	7.2		0	0			0	0		
St. Paul, Minn.			30.31	769.9	1	—17.2	72	E	5	2.2		0	0			0	0		
St. Paul's Island, Alaska			30.39	771.9	34	1.1	89	NW	5	2.2			10k			0.07	1.8		
Squan Beach, N. J.			30.18	766.6	15	— 9.4	50	NW	4	1.8		0	0			0.05	1.3		
Toledo, Ohio			30.34	770.6	10	—11.7	69	Calm	0	0		0	Sm'e			0	0		
Tybee Island, Ga.			30.20	767.1	46	7.8	60	NW	16	7.2		Haze	0			0	0		
Vicksburg, Miss.			30.43	772.9	40	4.4	83	Calm	0	0		0	Sm'e			0	0		
Virginia City, Mon.			29.37	746.0	29	— 1.7	77	S	10	4.5			10s			0.40	10.2		
Washington, D. C.			30.28	769.1	23	— 5.0	66	NW	8	3.6		0	Sm'e			0	0		
Wilmington, N. C.			30.16	766.1	35	1.7	80	N	14	6.2			10n			0.11	2.8	Light snow	
Wood's Hole, Mass.			30.08	764.0	19	— 7.2	53	NW	15	6.7		0	0			0	0		
Wytheville, Va.			30.04	763.0	23	— 5.0	86	N	10	4.5			10n			0	0	Light snow	
Yankton, D. T.			30.22	767.6	16	— 8.9	74	SE	7	3.1		2c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, Barbadoes, W. I.			30.08	764.0	78	25.6		NE	3	1.3		5ck	5s	E		0	0		E. Racker.
Pointe-à Pitre, G'd'Loupe, do			29.95	760.7	76	24.4		E				5k	5n			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.86	758.4	75	23.9	85	S	3.6	1.6		8ck	0	W		0.78	19.8		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.24	768.1	77	25.0		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.24	768.1			78	25.6		ESE	9	4.0		1c	2k	NE	N	0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.89	759.2	75	23.9	69	Calm	0	0		0	0			0	0		Robert Mason.
St. Georges, Bermudas			29.84	757.9	71	21.7	87	SW	43.2	19.3		4cs	2d			0.040	1.0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	65	18.3		Calm			0	5c	5ks	S		0	0		E. P. Church.
Makawao, Maui, I.																			F. L. Clarke.
Cumberland B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.94	760.1	19.0	− 7.2	92	S	4	1.8		10ck	0	S		0	0	Snowy	J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5															C. Partridge.
St. John's, Newfoundland			29.68	753.9	17	− 8.3	100	N					10s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.13	765.3	77.9	25.5	83	SE			2		10s			0.070	2.00	Rain	Leon M. Acuña.
Illyria, Ohio			30.43	772.9	7	−13.9	100	NW	3	1.3		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.42	747.3			28	− 2.2		SE			1	0	1s			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Mykawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 23, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:18 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T. mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0															Charnot.
Algiers			29.99	761.8	54.3	12.4	87	alm			0		8			0.576	19.2	Rain	Peter.
La Calle			29.94	760.4															Kuntz.
Tunis			29.92	760.2	54.0	12.2	63	NW			4		8			0.094	2.4	Rain	Jacques.
Sfax			29.94	760.4															Chauvey.
Saida			30.09	764.3	61.	16.1		NW			2		5			0.039	1.0		Grosjean.
Tebessa			29.93	760.3															Colin.
Geriville			30.08	764.0	56.3	13.5		SW			3		10			0.236	6.0	Rain	Bernadach.
Laghouat			30.00	762.1	60.1	15.6	44	SW			3		4			0	0		Poinsignon.
Biskra			29.95	760.7	65.0	18.3	54	NW			2		8			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.96	760.9	37.0	2.8	61	NE			2		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.95	760.8	22.1	— 5.5	70	W			4		10			0.024	0.6		I. R. Observatory.
Eperies			29.88	759.0	27.5	— 2.5	50	N			5		8			0.007	0.17		Julius Mikolik.
Gratz			29.93	761.2	30.9	— 0.6	88	E			2.5		10			0	0		Andreas Rospini.
Hermannstadt			29.78	756.3	38.3	3.5	60	E			1		10			0.035	0.9		Prof. Reissenberger.
Kremsmünster			30.13	765.3	37.4	3.0	57	NE			3		5			0.055	1.4	Snow	Prof. C. Wagner.
Lemberg			29.83	757.7	24.8	— 4.0	78	W			3		7			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.88	758.9	28.4	— 2.0	65	NW			1		10			Blank	Blank		Habzsuda Daniel.
Pola			29.81	757.6	45.7	7.6	17	ENE			4		3ks			0	0		I. R. Hydrographic Office
Szegedin			29.83	757.7	35.6	2.0	75	W			3		10			0	0		Karl Stancel.
Trieste			29.85	758.2	44.4	6.9	28	ENE			2		10			0	0		Prof. V. Farolfi.
Vienna			30.05	763.2	28.8	— 1.8	80	NNE			1		8			0.071	1.8		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.11	764.8			33.1	0.6	60	E			1		0			0.004	0.1		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.30	769.6	49.9	9.9		NW	12	5.4			7			0.080	2.03		William Boswell.
Annanhill																			
Ardrossan			30.33	770.4	48	8.9		SW			1		6						William McNeil.
Armagh Observatory			30.37	771.4	49.8	9.9		WSW	4	1.8			4						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.36	771.1	47.0	8.3		SW			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.37	771.4	53.4	11.9		SSW			1		9						J. Dreyer, for L'd Rosse.
Bradford			30.30	769.6	45.7	7.6		N			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	80.0	26.7		NE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.36	771.1	42.0	5.6		Calm			0		2						H. Todd.
Cape Town, (Cape Colony)			29.93	760.2	72.4	22.4		W			3		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.94	760.5			75.8	24.3	45	W	5	2.2			4						The Royal Observatory.
Cardington			30.37	771.4	45.4	7.4		E					1						John McLaren.
Carlisle			30.37	771.4	46.1	7.8		Calm					10			0.01	0.3	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.34	770.6	40.1	4.5		NE			1		4						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.91	759.7	80.6	26.9		S			1		4						Sgt. W. F. Hopkins
Dartmoor			30.41	772.4	43	6.1		NE			3		0						R. E. Power.
Donaghadee			30.41	772.4	50	10.0		W			2		2						J. Mac Gowan, Jr.
Dover			30.36	771.1	37	2.8		NE			4		2						J. Costello.
Dublin																			
Durham Observatory			30.32	770.1	44.8	7.1		S					10						G. D. Goldney.
Eccles, (near Manchester)			30.34	770.6	47.8	8.8		ENE	1.0	0.4			10						Thomas Mackereth.
Falmouth Observatory			30.38	771.6	46.0	7.8		ESE	14	6.3			1						The Falmouth Obs.
Fort Napier, (Natal)			29.79	756.4	73.6	23.1		S			2		10						Pvt. G. Salmon.
Galway, Queen's College			30.32	770.1	54	12.2		NW			2		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.93	760.2	61.0	16.1		NE			3		8						Sergt. E. G. Baker.
Glasgow Observatory			30.30	769.6	50	10.0		W			3		10					Mist	James Gray.
Gloucester, G. Co. Asylum																			E. Toller.
Great Yarmouth			30.38	771.6	39	3.9		Calm			0		0						G. T. Watson.
Greenwich Royal Obs.			30.36	771.1	45.8	7.7		ENE			1		7						The Staff.
Guernsey			30.34	770.6	43	6.1		NE			3		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.30	769.6	45.6	7.5		NNE					10					Mist	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.13	765.3	15.2	— 9.3		N			4		2						Corp'l J. Y. Thompson.
Helston			30.36	771.1	52	11.1		E			3		4						Dr. W. B. Moyle.
Holyhead			30.36	771.1	48	8.9		SW			1		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.36	771.1	42.7	5.9		NE	10	4.5								Mist	The Staff.
Kingstown			30.38	771.6	49	9.4		ESE			1		9					Mist	George Mitchell.
Lampeter																			
Leicester Museum			30.37	771.4	41.9	5.5		E			1		10						William J. Harrison
Llandudno			30.36	771.1	47.9	8.8		SSE					10						Dr. James Nicol.
Malta, (Mediterranean)			29.88	761.5	59.0	15.0		W			1		5						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.31	769.9	51	10.6		Calm			0		10						William D. Penny.
Nassau, (Bahamas)			30.20	767.1	67.6	19.8		N			6		5						Surg.-Maj. I. Jameson.
North Shields			30.35	770.9	46	7.8		WSW			3		7					Fog	John Wm. Irvine.
Nottingham			30.37	771.4	47	8.3		ENE			2		10k		SE				E. J. Lowe.
Osborne, New Barn Cottage																			J. R. Mann.
Oscott, St Mary's College			30.36	771.1	45.2	7.3		NE			1		10					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.34	770.6	45	7.2		ENE			2		4						J. Lucas, for R. Main.
Plymouth			30.34	770.6	50	10.0		N			1		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwyllheli, Cochy foel																			
Roche's Point			30.34	770.6	52	11.1		SE			3		5						W. Kennedy.
Saint Ann's Head			30.38	771.6	47	8.3		SSE			1		7						John C. Walker.
St. Helier, (Jersey)			30.32	770.1	46.2	7.9		E			3		5						A. P. Amy.
Sandwick Manse, (Orkneys)			30.27	768.8	46.5	8.1		W	20	8.9			10						Rev. C. Clouston
Scarborough			30.36	771.1	45.4	7.4		E			1		8					Rain	F. Shaw.
Scutari, (Turkey)			29.64	778.2	44.4	6.9		NE			2		10			0.52	13.2		Sergt. W. H. Lyne.
Sheffield			30.34	770.6	45.7	7.6		SE			1		5						W. F. Cooper.
Sidmouth																			
Sillioth Rectory			30.35	770.9	47.0	8.3		W			2		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.36	771.1	45	7.2		ENE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.36	771.1	46.5	8.1		S			1		10					Haze	The Staff.
Stornoway, Lews C. (Hebr.)			30.29	769.4	51	10.6		W			2		10						John Smith.
Strathfield Turgiss			30.35	770.9	45.5	7.5		NE			1		0						Rev. Charles H. Griffith
Streatley Vicarage			30.36	771.1	50.4	10.2		NNE			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.14	765.5	45	7.2		WNW			3		8						William Lawrence.
Taunton College																			
Thurso			30.28	769.1	45	7.2		W			2		7						John Trotter.
Truro, Royal Institution			30.28	769.1	55	12.8		E			4		6						W. Newcombe.
Valencia Observatory			30.29	769.4	54.4	12.4		SE	8	3.6			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.34	770.6	45.9	7.7		NE			2		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Copenhagen			30.21	767.3	25.2	— 3.8	56	NW			2		4						
Fanöe			30.24	768.2	28.8	— 1.8	72	WSW			4		10						
Godthaab, (Greenland)			29.04	737.7	9.7	—12.4		NNE			7		10						
Stykkisholm, (Iceland)			29.44	747.7	47.8	8.8	81	S			7		8					Rain	
Thorshavn, (Faröe)			30.11	764.8	48.4	9.1	84	W			4		10						
Vestervig			30.10	764.5	34.9	1.6	96	SW			1		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.76	755.8	57.6	14.2	35						8k						Normal School.
Alençon			30.19	766.7	47.1	8.4	76	NE			1		5nk			0	0		Normal School.
Amiens			30.24	768.1	41.7	5.4	83	NE			8		0			0.087	2.2		Normal School.
Beaumette, (near Angers)			30.23	767.7	45.0	7.2	40	NE	14.1	6.3			0		NE	0	0		Beaumette Observatory
Beauvais			30.30	769.6	39.0	3.9	45	N			3		1		NE	0.025	0.65		Normal School.
Besançon			30.13	765.4	37.2	2.9	82	NE			4		10		NE	0.071	1.8		Normal School.
Bourges			30.15	765.8	43.2	6.2		N			2		10		N	0.024	0.6		Normal School.
Brest			30.25	768.3	46.9	8.3	59	NE			3		5k		NE	0.089	1.25		Naval Observatory.
Caen			30.30	769.7	44.4	6.9	59	NE			4		0		NE	0.004	0.1		Normal School.
Carcassonne																			
Chartres			30.24	768.1	38.3	3.6		N			2		1k		N	0.059	1.5		Normal School.
Chaumont			30.16	766.0	38.5	3.6		N			6		10		N	0	0		Normal School.
Le Mans			30.28	769.0	41.7	5.4	54	NE			4		2		NE	0	0		Normal School.
Mirecourt			30.08	763.9	38.1	3.4		NE			4		0			0	0		Normal School.
Orleans			30.23	767.7	39.2	4.0	77	NE			6		5		N	0	0		Normal School.
Paris			30.24	768.0	39.9	4.4		N			3		0			0.018	0.46		National Observatory.
Parthenay			30.19	766.7	46.0	7.5	81	NE			6		5		SW	0	0		
La Roche sur Yon			30.24	768.1	46.8	8.2	59	NE			2		8		SW	0	0		Normal School.
Rouen			30.28	769.0	45.0	7.2	62	NE			4		1		N	0	0		Normal School.
Saint Lo			30.29	769.4	44.4	6.9	70	E			6		0			0	0		Normal School.
Villefranche			30.06	763.4	41.4	5.2	83	NNW			4		5		NW	0.024	0.6		Normal School.
FRENCH SUB-SERIES.																			
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.68	626.9			29.7	— 1.3	70	NNW	11.2	5.00			8		W	0.008	0.2		—. Falguère.
Montsouris (near Paris)			30.23	767.9	39.9	4.4	50	N	15.2	7.78			3cs		N	0.004	0.1		Marié Davy.
Perpignan	29.86	758.5			42.4	5.8	68	WNW	14.9	6.66			2			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.24	768.0	42.6	5.9	44	N			2		1			0.067	1.7		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.23	767.9	42.1	5.6	56	NNE			1		5		NE	0.016	0.4		C. Marquet.
Versailles, (near Paris)			30.24	768.2	40.6	4.8	52	NNE			4		9			0.035	0.85		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.11	764.9	27.9	— 2.3	63	NE			2		3			0.031	0.8		Prof. Hoh.
Berlin			30.28	769.2	27.7	— 2.4	62	N			1		7			0.008	0.2		Prof. Arndt.
Breslau			30.10	764.6	27.5	— 2.5	58	N			8		6			0.039	1.0	Snow	Dr. P. Neugebauer.
Carlsruhe			30.20	767.0	32.7	0.4	55	NE			2.5		1			0.192	4.9		A. Senz.
Cassel			30.22	767.6	32.4	0.2	73	N			2		1			0	0		Dr. H. Möhl.
Cologne			30.26	768.6	32.0	0.0	64	NE			1		8			0	0	Snow	Dr. Garthe.
Emden			30.43	773.0	32.4	0.2	56	SW			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.36	771.1	31.8	— 0.1	76	NNE			1		0			0.028	0.7		Physical Society.
Friedrichshafen			30.11	764.7	32.9	0.5	90	NE					10			0	0	Snow	M. Wilhelm.
Hamburg			30.34	770.6	33.4	0.8	52	NNW			3		3			0	0		W. Reinert.
Kiel			30.28	769.1	30.2	— 1.0	54	NNE			1		7			0	0		Prof. G. Karsten.
Königsberg			30.08	764.0	20.3	— 6.5	78	NE			4		0			0.146	3.7	Snow	Prof. E. Luther.
Köslin			30.46	773.7	27.5	— 2.5		N			4		10			0.035	0.9		Dr. Tägert.
Leipsic			30.28	769.2	26.6	— 3.0	70	NNW			2		8			0	0		Prof. Bruhns.
Münster			30.33	770.3	30.6	— 0.8	79	W			3		0			0.016	0.4	Snow	Prof. E. Heis.
Posen			30.16	766.0	29.5	— 1.4	76	NW			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.17	766.2	32.9	0.5	52	NE					2			0	0		Hartwig and Tülk.
Stuttgart			30.19	766.7	31.6	— 0.2	52	E					2			0.090	2.3	Snow	Mr. Würth.
Thorn			30.04	763.1	26.2	— 3.2	63	NNE			5		6			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.17	766.3	34.2	1.2	54	NE			7		3			0	0		Prof. Flesch.
Wustrow			30.28	769.1	25.2	— 3.8	71	NW			2		0			0	0		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.85	758.3	47.1	8.4	46	SSW	3.8	1.7			4	E		0	0		
Mondovi			29.85	758.2	40.5	4.7	48	NW			2		2	W		0	0		
Genoa			29.82	757.5	50.9	10.5	25	N	7.4	3.3			0			0	0		
Pavia			29.85	758.3	46.4	8.0	27	SE			2		0			0	0		
Verona			29.82	757.5	45.0	7.2	38	E			2		0			0	0		
Padua			29.80	758.5	43.3	6.3	29	SE	3.1	1.4			2	N		0	0		
Parma																			
Bologna			29.86	758.5	43.2	6.2	32	NNE			4		2	E		0	0		
Livorno			29.84	758.0	47.3	8.5	37	NNE	3.8	1.7			1			0	0		
Urbino			29.91	759.7	36.5	2.5		N			4		1			0	0		
Ancona																			
Siena			29.82	757.5	43.7	6.5	19	ENE	7.4	3.3			0			0	0		
Rome			29.76	755.9	48.7	9.3	35	NW	6.9	3.1			2			0	0		
Naples, O.U.			29.76	755.9	54.7	12.6	46	SW			2		2	NW		0	0		
Lecce			29.57	751.1	49.1	9.5	58	NNW	12.5	5.6			9			0	0		
Cosenza			29.77	756.1	52.9	11.6	78	NW			2		10			0.217	5.5		
Catania, (Sicily)																			
Riposto			29.76	755.9	62.2	16.8	70	N			2		6	NW		0	0		
Palermo			29.72	754.9	54.1	12.3	57	WNW			2		9	WNW		0	0		
Sub-Series.																			
Naples, S. R.																			Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.37	771.4	36.7	2.6		NE			4								
Groningen			30.30	769.5	31.0	— 0.5		NW			0								
Helder			30.35	771.0	32.0	0.0		NE			0								
Utrecht			30.31	769.9	33.6	0.9		NE			3		0						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.11	764.8	41.2	5.1	87	S	1.6	0.7			10			0.079	2.0		
Christiania			30.06	763.4	26.4	— 3.2	87	W	2.9	1.3			9			0	0		
Tromsö			29 53	750.0	30.9	— 0.6	94	SW			6		10			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.65	753.1			56.1	13.4	33	NNE	18.6	8.3			0						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.94	760.4	25.2	— 3.8	100	N	16	7			7						Astronomical Obs.
Wilna			29.98	761.6	22.8	— 5.1	68	N	4	2			0						Astronomical Obs.
Dorpat			30.06	763.4	16.9	— 8.4	72	NNW	4	2			1						Physical Cabinet.
St. Petersburg			29.95	760.7	15.8	— 9.0	69	WNW	4	2			10						Central Physical Obs.
Kieff			29.98	761.5	25.3	— 3.7	60	SE	7	3			2						Physical Cabinet.
Nikolaiev			29.90	759.4	32.0	0.0	81	NE	7.8	3.5			5						
Kertch			29.76	755.9	41.7	5.4	86	ESE	10.1	4.5			10						Lagorio.
Moscow			29.87	758.6	20.5	— 6.4	66	WNW	10.1	4.5			8						Meteorological Obs.
Lugan			29.72	754.8	33.4	0.8	83	NNE	20	9			10						Meteorological Obs.
Archangel			29.88	758.9	17.6	— 8.0	83	NW	7.8	3.5			10						Ogorodnikof.
Tiflis			29.78	756.4	62.6	17.0	44	Calm	0	0			8						Physical Obs.
Astrakhan			29.84	757.9	36.5	2.5	89	ESE	4	2			10					Fog	Sebastianof.
Kasan			29.84	758.0	21.6	— 5.8	90	SSE	7.8	3.5			10					Snow	Physical Cabinet.
Orenburg			30.10	764.5	21.2	— 6.0	85	NE	7.8	3.5			5						Tschernischef.
Ekaterinburg			30.40	772.2	14.7	— 9.6	68	E	10.1	7.5			7						Meteorological Obs.
Kasaly			29.93	760.1	37.8	3.2	83	NE	7.8	3.5			10						Bobrof.
Tashkend			30.07	763 8	53.1	11.7	93	SE	7.8	3.5			10					Rain	Michelson.
Barnaul			30.76	781.4	— 3.8	—19.9	65	WNW	4	2			2						Meteorological Obs.
Yeniseisk			30.50	774.6	12.0	—11.1	67	Calm	0	0			0						Marks.
Irkutsk																			Usolzof.
Oorga			29.61	752.0	21.7	— 5.7	100	E	4	2			10						Messin.
Peking, (China)			29.97	761.1	39.7	4.3	66	Calm	0	0			8						Physical Observatory
Nertchinsk			30.01	762 3	17.2	— 8.2	62	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.03	762.7	52.3	11.3	34	NE	20.8	9.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.98	761.5	14.7	— 9.6	87	SW			2		1			0	0		
Hernosand			30.00	761.9	21.2	— 6.0	64	S			2		2			0.047	1.2		
Stockholm			30.06	763.5	18.3	— 7.6	46	W			4		0			0.008	0.2		
Wisby			30.11	764.9	19.4	— 7.0	100	N			2		5			0	0		
Sub-Series.																			
Upsala			30.08	764.0	19.6	— 6.9	57	SW			2		2		NNE				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.54	725.0			40.3	4.6	55	NNE			6		4			0	0		The Observatory.
Zurich	28.37	720.6			33.6	0.9	85	N			2		9			0.047	1.2		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.6mm.; Thermometer, —4°.1 C.; Relative Humidity, —5 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.61	752.1	75.9	24.4	45	SW			3		5						
Constantinople			29.65	753.0	41.7	5.4	91	N	14.5	6.5			10		NNE	0.425	10.8		
Fao, (Persian Gulf)			30.09	764.3	80.6	27.0		NW			3		10						
Salonica			29.65	753.2	48.9	9.4		SW			1		10					Snow	
Valona			29.64	752.8	53.2	11.8		NW			3		8						
Varna			29.80	757.0	39.7	4.3		N			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.50	774.7	11	—11.7		Calm	0	0		0	0			0	0		
Cape Roziere, Quebec			30.24	768.1	7	—13.9	77	N	25	11.2		2c	0	NW		0	0		
Chatham, N. B.			30.30	769.6	9	—12 8	74	N	8	3.6		0	0			0	0		
Charlottetown, P. E. Island			30.20	767.1	10	—12.2	77	N	18	8.0		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			29.81	757.2	15	— 9.4	95	W	13	5.8		0	1n		SW	0.02	0.5		
Halifax, N. S.			30.09	764.3	13	—10.6	64	N	15	6.7		5c	0			0	0		
Kingston, Ontario			30.49	774.4	10.4	—12.0	76	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.44	773.2	12	—11.1	50	NE	1	0.4		0	0			0	0		
Ottawa, Ontario			30.45	773.4	3	—16.1	66	SW	2	0.9		0	0			0	0		
Parry Sound, Ontario			30.45	773.4	— 5	—20.6	54	E	5	2.2		0	0			0	0		
Port Dover, Ontario			30.46	773.7	6	—14.4	76	NW	4	1.8		0	0			0	0		
Port Stanley, Ontario			30.45	773.4	6	—14 4	95	Calm	0	0		0	0			0	0		
Quebec, Quebec			30.43	772.9	— 6	—21.1	81	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.40	772.1	5	—15.0	87	NE	10	4.5		2c	0			0	0		
Stayner			30.42	772.7	5	—15.0	75	Calm	0	0		0	0			0	0		
Sydney, C. B.			30.10	764.5	7	—13.9	70	NE	15	6.7		8c	0	SW		0	0		
Toronto, Ontario			30.46	773.7	11	—11.7	76	N	4	1.8		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.45	773.4	2	—16.7	86	Calm	0	0		0	0			0	0		
Alpena, Mich.			30.32	770.1	4	—15.6	74	SE	1	0.4		5cs	Haze			0	0		
Atlantic City, N. J.			30.42	772.7	20	— 6.7	55	N	14	6.3		0	0			0	0		
Augusta, Ga.			30.48	774.2	36	2.2	55	E	6	2.7		0	0			0	0		
Baltimore, Md.			30.46	773.7	25	— 3.9	62	NW	6	2.7		0	0			0	0		
Barnegat, N. J.			30.41	772.4	13	—10.6	79	W	15	6.7		0	0			0	0		
Benton, Montana			30.07	763.8	11	—11.7	79	SW	12	5.4		0	0			0	0		
Bismarck, Dakota			29.84	757.9	14	—10.0	46	N	6	2.7		5k	0	N		0	0		
Boston, Mass.			30.35	770.9	18	— 7.8	52	N	8	3.6		0	0			0	0		
Breckenridge, Minn.			29.76	755.9	27	— 2.8	90	NW	8	3.6			10s			0.45	11.4		
Buffalo, N. Y.			30.47	773.9	10.5	—11.4	69	S	8	3.6		0	0			0	0		
Burlington, Vt.			30.15	773.4	8	—13.3	55	E	3	1.3		0	2s			0	0		
Cairo, Ill.			30.20	767.1	38	3.2	63	SE	16	7.2		2c	0	W		0	0		
Cape Hatteras, N. C.			30.39	771.9	34	1.1	79	NE	20	8.9		0	5s			0	0		
Cape Henry, Va.			30.44	773.2	34	1.1	71	N	18	8.0		0	0			0	0		
Cape May, N. J.			30.44	773.2	20	— 6.7	70	NW	16	7.2		0	0			0	0		
Charleston, S. C.			30.46	773.7	37	2.8	45	NE	17	7.6		0	0			0	0		
Cheyenne, W. T.			29.84	757.9	31	— 0.6	69	NW	20	8.9			10s			0	0		
Chicago, Ill.			30.08	764.0	36	2.2	70	S	12	5.4		0	10s			0	0		
Cincinnati, Ohio			30.38	771.6	30	— 1.1	78	SE	8	3.6		5ck	0			0	0		
Cleveland, Ohio			30.14	765.5	13	—10.6	81	SE	6	2.7		2cs	Sm'e			0	0		
Colorado Springs, Col.			29.74	755.4	48	8.9	37	N	12	5.4		10cs	0			0	0		
Corsicana, Texas			30.04	763.0	55	12.8	73	S	12	5.4		8k	0	S		0	0		
Davenport, Iowa			29.93	760.2	33	0.6	79	S	16	7.2		5k	5n			0	0	Light rain	
Denver, Col.			29.92	760.0	34	1.1	52	SE	5	2.2		2cs	0	W		0	0		
Detroit, Mich.			30.39	771.9	17	— 8.3	75	SW	2	0.9		2c	Haze			0	0		
Dodge City, Kansas			29.48	748.8	48	8.9	43	NW	12	5.4		0	0			0	0		
Dubuque, Iowa			29.94	760.5	35	1.7	70	SW	12	5.4			10s			0	0		
Duluth, Minn.			29.78	756.4	24	— 4.4	86	NE	16	7.2			10s			0.12	3.0		
Eastport, Me.			30.25	768.3	15	— 9.4	82	NE	13	5.8		0	0			0	0		
Erie, Penn.			30.43	772.9	15	— 9.4	73	S	4	1.8		2c	Fog			0	0		
Escanaba, Mich.			30.07	763.8	25	— 3.9	75	S	16	7.2			10s			0	0		
Fort Gibson, I. T.			29.87	758.7	55	12.8	57	S	16	7.2			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.85	758.2	30	— 1.1	83	NW	10	4.5			8s		NW	0	0		
Galveston, Texas			30.17	766.3	61	16.1	83	S	7	3.1		0	2ks			0	0		
Grand Haven, Mich.			30.19	766.8	29	— 1.7	78	S	16	7.2			10s			Blank	Blank		
Indianapolis, Ind.			30.30	769.6	29	— 1.7	72	SE	8	3.6		5cs	0	W		0	0		
Indianola, Texas			30.11	764.8	64	17.8	67	S	8	3.6			10s			0	0		
Jacksonville, Fla.			30.38	771.6	47	8.3	71	N	4	1.8		0	0			0	0		
Keokuk, Iowa			29.88	758.9	36	2.2	76	SE	26	11.6		5c	5s	W		0.04	1.0		
Key West, Fla.			30.22	767.6	67.3	19.6	65	N	16	7.2		Haze	Haze			0	0		
Kittyhawk, N. C.			30.44	773.2	30	— 1.1	79	N	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.44	773.2	28	— 2.2	77	NE	8	3.6		0	Haze			0	0		
La Crosse, Wis.			29.78	756.4	37	2.8	90	S	20	8.9			10s			0	0	Threatening	
Leavenworth, Kan.			29.74	755.4	43	6.1	60	S	12	5.4			10s			0	0		
Lexington, Ky.			30.39	771.9	28	— 2.2	77	SE	10	4.5		0	0			0	0		
Long Branch, N. J.			30.41	772.4	22	— 5.6	72	NW	20	8.9		0	0			0	0		
Louisville, Ky.			30.35	770.9	31	— 0.6	68	E	8	3.6		0	0			0	0		
Lynchburg, Va.			30.49	774.4	30	— 1.1	62	E	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.99	761.7	23	— 5.0	86	S	16	7.2			10n			0.01	0.3	Light snow.	
Memphis, Tenn.			30.24	768.1	41	5.0	57	SE	6	2.7		2c	0			0	0		
Milwaukee, Wisconsin			30.10	764.5	28	— 2.2	88	SE	17	7.6			10ks			0	0		
Mobile, Ala.			30.33	770.4	49	9.4	57	SE	14	6.3		8c	Haze			0	0		
Montgomery, Ala.			30.39	771.9	42	5.6	62	E	9	4.0		0	0			0	0		
Morgantown, W. Virginia			30.48	774.2	22	— 5.6	72	Calm	0	0		0	Haze			0	0		
Mt. Washington, N. H.			29.97	761.2	— 7	—21.7	100	N	12	5.4		0	0			0	0		
Nashville, Tenn.			30.34	770.6	35	1.7	70	E	6	2.7		0	0			0	0		
New Haven, Conn.			30.40	772.1	18	— 7.8	52	N	14	6.3		0	0			0	0		
New London, Conn.			30.37	771.4	22	— 5.6	51	N	9	4.0		0	0			0	0		
New Orleans, La.			30.27	768.8	50	10.0	72	SE	2	0.9		2c	Sm'e	W		0	0		
Newport, R. I.																			
New York, N. Y.			30.43	772.9	15	— 9.4	47	N	16	7.2		0	0			0	0		
Norfolk, Va.			30.46	773.7	27.5	— 2.5	77	N	14	6.3		0	0			0	0		
North Platte, Neb.			29.48	748.8	35	1.7	63	N	18	8.0			10ks		W	0	0		
Omaha, Neb.			29.66	753.4	41	5.0	65	S	7	3.1			10s			0	0		
Oswego, N. Y.			30.49	774.4	6	—14.4	76	S	3	1.3		Haze	Fog			0	0		
Peck's Beach			30.44	773.2	20	— 6.7	70	N	20	8.9		0	0			0	0		
Pembina, D. T.			29.81	757.2	10	—12.2	79	NW	8	3.6			5s			0	0		
Philadelphia, Penn.			30.46	773.7	18	— 7.8	39	N	18	8.0		0	0			0	0		
Pike's Peak, C. T.			29.69	754.1	8	—13.3	100	SW	40	17.9		0	Fog			0	0		
Pittsburgh, Penn.			30.50	774.7	18	— 7.8	84	Calm	0	0		Sm'e	Haze			0	0		
Port Huron, Mich.			30.41	772.4	13	—10.6	62	S	8	3.6		5c	0			0	0		
Portland, Maine			30.36	771.1	15	— 9.4	65	N	12	5.4		0	0			0	0		
Portland, Or.			30.24	768.1	40	4.4	86	S	4	1.8			10n			0.15	3.8	Light rain	
Punta Rassa, Fla.			30.29	769.4	55	12.8	55	NE	14	6.3		0	Sm'e			0	0		
Rochester, N. Y.			30.48	774.2	5	—15.0	75	SW	8	3.6		0	0			0	0		
Salt Lake City, Utah			30.02	762.5	38	3.3	71	E	2	0.9			10s			0.08	2.0		
Sandy Hook, N. J.			30.40	772.1	17.5	— 8.1	67	N	22	9.8		0	Haze			0	0		
San Diego, Cal.			30.10	764.5	53	11.7	86	SE	4	1.8			10s			0	0		
San Francisco, Cal.			30.21	767.3	47	8.3	77	W	12	5.4		Haze	Haze			0.01	0.3		
Santa Fe, N. M.			29.69	754.1	36	2.2	25	NW	8	3.6		0	0			0	0		
Savannah, Georgia			30.43	772.9	43	6.1	42	NE	8	3.6		0	0			0	0		
Shreveport, La.			30.18	766.6	47	8.3	81	S	4	1.8		2c	0			0	0		
Springfield, Mass.			30.40	772.1	17	— 8.3	52	Calm	0	0		0	Sm'e			0	0		
St. Louis, Mo.			30.10	764.5	37	2.8	80	S	2	0.9			10s			0	0		
St. Marks, Fla.			30.37	774.4	43	6.1	67	NE	6	2.7		0	0			0	0		
St. Paul, Minn.			29.61	752.1	31	— 0.6	89	SE	24	10.7			8s			0.01	0.3		
St. Paul's Island, Alaska			30.22	767.6	35	1.7	89	W	27	12.1		10ck	k	W		0.02	0.5		
Squan Beach, N. J.			30.41	772.4	16	— 8.9	67	NW	6	2.7		0	0			0	0		
Toledo, Ohio			30.30	769.6	20	— 6.7	55	SE	8	3.6		5c	0	SW		0	0		
Tybee Island, Ga.			30.45	773.4	43	6.1	67	NE	14	6.3		Haze	0			0	0		
Vicksburg, Miss.			30.31	769.9	45	7.2	75	SE	3	1.3			10s			0	0		
Virginia City, Mon.			29.72	754.9	13	—10.6	79	SW	8	3.6		Haze	0			0	0		
Washington, D. C.			30.50	774.7	23	— 5.0	48	N	12	5.4		0	Sm'e			0	0		
Wilmington, N. C.			30.44	773.2	32	0.0	60	NE	10	4.5		0	0			0.01	0.3		
Wood's Hole, Mass.			30.30	769.6	24	— 4.4	74	N	13	5.9		0	2s			0	0		
Wytheville, Va.			30.26	768.6	24	— 4.4	74	Calm	0	0		0	0			0.01	0.3		
Yankton, D. T.			29.78	756.4	29	— 1.7	79	NW	25	11.2			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W I.			30.09	764.2	80	26.7		NE	4	1.8		5k	5s	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.95	760.7	73	22.8		E					2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.97	761.2	74	23.3	67	E	6	2.7		2k	0	NE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	77	25.0		Calm	0	0		0	2s			0.06	1.5		James Gall.
St. Thomas, St. T., W. I.	30.24	768.1			76	24.4		Calm	0	0		1ck	2k	E	N	0	0	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.92	760.0	75	23.9	76	NE	3.6	1.6		8ck	0	NNE		0	0		Robert Mason.
St. Georges, Bermudas			29.08	761.5	58	14.4	67	NW	20.4	9.1			10k			0.170	4.3		C. F. Allen.
Honolulu, Oahu, S. I.			30.14	765.5	67	19.4		Calm			0	7c	10cs	S		0	0		E. P. Church.
Makawao, Maui, I.			30.00	762.0	64	17.8	78	Calm	0	0		0	8n			0	0		F. L. Clarke.
Cumberland B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.52	749.8	21	— 6.1	93	N	4	1.8			10n			0	0	Snowy	J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0			90	N	2.5	1.1		2c	2k	NNE		0.02	0.5	Showery	C. Partridge.
St. John's, Newfoundland			29.99	761.7	21.5	— 6.4	86	NE				10k	10s			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.08	763.9	75.9	24.4	73	SW			1	0	0			0	0		Leon M. Acuña.
Ellyria, Ohio			30.41	772.4	12	—11.1	61	S				0	0			0	0		H. M. Redington.
Indianola, Iowa	28.91	734.3			38	3.3		SE			2	1cs	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Mykawao is 2,205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY AT 7:35 A. M., MARCH 24, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T. mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.1															Charnot.
Algiers			30.10	766.1	54.0	12.2	76	ENE			3		5			0	0		Peter.
La Calle			30.12	765.0															Kuntz.
Tunis			30.11	764.7	53.8	12.1	72	W			3		10			0.09	2.3	Rain	Jacques.
Sfax			30.07	763.8															Chauvey.
Saida			30.31	769.8	54.0	12.2		N			2		0			0	0		Grosjean.
Tebessa			30.12	765.0															Colin.
Geriville			30.30	769.6	56.3	13.5		NE			2		6			0.118	3.0	Rain	Bernadach.
Laghouat			30.18	766.5	58.3	14.6	57	SE			3		8			0	0		Poinsignon.
Biskra			30.13	765.4	55.8	13.2	84	NE			2		10			0.354	9.0	Light rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.15	765.7	35.4	1.9	67	NE			2		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.15	765.8	22.1	— 5.5	81	W			2		10			0.039	1.0	Snow	I. R. Observatory.
Eperies			30.06	763.4	26.2	— 3.2	63	W			3		8			0	0		Julius Mikolik.
Gratz			30.11	764.8	34.3	1.3	41	WNW			5		2.5			0.051	1.3		Andreas Rospini.
Hermannstadt			29.95	760.8	30.0	— 1.1	76	NNE			3		10			0.161	4.10	Snow	Prof. Reissenberger.
Kremsmünster			30.27	768.8	26.0	3.0	66	WNW			3		10			0.032	0.8	Snow	Prof. C. Wagner.
Lemberg			30.05	763.2	40.0	4.8	89	NE			2		8			0.008	0.2	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.07	763.7	28.4	— 2.0	68	N			3		10			Blank	Blank		Habzsuda Daniel.
Pola			30.16	766.0	39.4	4.1	34	WSW			1		1k			0	0		I. R. Hydrographic Office
Szegedin			30.05	763.3	32.0	0.0	76	W			2		10			0.004	0.10		Karl Stancel.
Trieste			30.15	765.8	39.0	4.4	35				1		1			0	0		Prof. V. Faroli.
Vienna			30.19	766.7	28.4	— 2.0	76	NNW			2		6			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.16	766.0			38.1	3.4	76	W			1		10			0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.15	765.8	50.0	10.0		SSW	12	5.4			4			0	0		William Boswell.
Annanhill																			
Ardrossan			30.23	767.8	47	8.3		SSW			3		6						William McNeil.
Armagh Observatory			30.29	769.4	52.9	11.6		SW	20	8.9			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.34	770.6	51.1	10.6		WSW			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.34	770.6	53.4	11.9		WSW			1–3		8						J. Dreyer, for L'd Rosse.
Bradford			30.27	768.8	48.6	9.2		SW			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.06	763.5	79.8	26.6		NE			2		7					Rainy	T. H Hunt.
Bywell																			
Cambridge Observatory			30.34	770.6	52.0	11.1		NW			1		4						H. Todd.
Cape Town, (Cape Colony)			30.10	764.5	67	19.4		SE			6		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.14	765.5			70.2	21.2	46	SE	28	12.5			0						The Royal Observatory.
Cardington			30.36	771.1	45.0	7.2		N					9						John McLaren.
Carlisle			30.30	769.6	51.0	10.6		W					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.36	771.1	45.8	7.7		S			1		10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.90	759.4	80.3	26.8		SE			1		0						Sgt. W. F. Hopkins
Dartmoor			30.47	748.5	47	8.3		NW			1		6						R. E. Power.
Donaghadee			30.26	768.6	54	12.2		SW			3		9						J. Mac Gowan, Jr.
Dover			30.38	771.6	42	5.6		SW			3		8						J. Costello.
Dublin																			
Durham Observatory			30.26	768.6	50.7	10.4		WSW					10						G. D. Goldney.
Eccles, (near Manchester)			30.33	770.4	52.7	11.5		WNW	6.6	3.0			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.44	773.2	52.0	11.1		NW	6	2.7			4						The Fa'mouth Obs.
Fort Napier, (Natal)			29.73	755.1	84.1	28.9		E			3		6						Pvt. G. Salmon.
Galway, Queen's College			30.27	768.8	51	10.6		SW			5		2						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.05	763.3	59.0	15.0		ENE			7		10						Sergt. E. G. Baker.
Glasgow Observatory			30.21	767.3	51.0	10.6		SW			4		5						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.34	770.6	46	7.8		Calm			0		6					Mist	G. T. Watson.
Greenwich Royal Obs.			30.37	771.4	48.7	9.3		WSW			1		10						The Staff.
Guernsey			30.42	772.7	48.5	9.2		NW			1		8					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.26	768.6	51.2	10.7		WSW					9					Mist	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.45	773.4	17.0	8.3		Calm			0		2					Mist	Corp'l J. Y. Thompson.
Helston			30.41	772.4	53	11.7		N			3		5						Dr. W. B. Moyle.
Holyhead			30.34	770.6	50	10.0		SW			2		2					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.38	771.6	47.9	8.8		SW	7	3.1			10					Mist	The Staff.
Kingstown			30.34	770.6	53	11.7		WSW			3		9					Haze	George Mitchell.
Lampeter																			
Leicester Museum			30.36	771.1	51.8	11.0		W			1		10						William J. Harrison
Llandudno			30.35	770.9	50.2	10.1		W					6						Dr. James Nicol.
Malta, (Mediterranean)			30.06	763.5	58.0	14.4		NW			1		10						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.09	764.3	53	11.7		WSW			2		5						William D. Penny.
Nassau, (Bahamas)			30.28	769.1	75.3	24.1		NE			4		5						Surg.-Maj. I. Jameson.
North Shields			30.28	769.1	50	10.0		W			2		8						John Wm. Irvine.
Nottingham			30.35	770.9	53.1	11.7		W			1		10ck		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.35	770.9	50.6	50.3		NW			3		10					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.37	771.4	52	11.1		WNW			1		10						J. Lucas, for R. Main.
Plymouth			30.42	772.7	54	12.2		Calm			0		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.47	773.9	50	10.0		SW			3		10						W. Kennedy.
Saint Ann's Head			30.42	772.7	51	10.6		W			1		5						John C. Walker.
St. Helier, (Jersey)			30.44	773.2	50	10.0		W			2		10						A. P. Amy.
Sandwick Manse, (Orknys)			30.02	762.5	50	10.0		SSW	20	8.9			10						Rev. C. Clouston
Scarborough			30.30	769.6	49.8	9.9		W			1		10						F. Shaw.
Scutari, (Turkey)			29.91	759.7	40.6	4.8		NNE			3		10					Mist	Sergt. W. H. Lyne.
Sheffield			30.31	769.9	52.2	11.2		W			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.27	768.8	49.9	9.9		W			4		7			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.33	770.4	50	10.0		SSW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.32	770.1	50.3	10.2		W			3		8					Haze	The Staff.
Stornoway, Lews C. (Hebr).			29.99	761.7	50	10.0		SSW			6		10					Rain	John Smith.
Strathfield Turgiss			30.38	771.6	51.9	10.1		W			1		10						Rev. Charles H. Griffith
Streatley Vicarage			30.39	771.9	55.8	13.2		N			1		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.01	762.2	47	8.3		SSW			4		8						William Lawrence.
Taunton College																			
Thurso			30.03	762.7	50	10.0		SSW			3		8						John Trotter.
Truro, Royal Institution			30.37	771.6	56	13.3		NW			6		9						W. Newcombe.
Valencia Observatory			30.30	769.6	52.7	11.5		SSW	26	11.6			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.43	772.9	43.6	6.4		SW			1		10						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.09	764.2	31.6	— 0.2	89	W			1		10						
Fanöe			30.10	764.5	39.0	3.9	98	NNW			4		10						
Godthaab, (Greenland)			30.42	747.2	2.5	—16.4		NE			9		2						
Stykkisholm, (Iceland)			29.11	739.3	39.3	4.4	74	S			7		8					Rain	
Thorshavn, (Faröe)			29.76	755.8	46.9	8.3	89	SSW			6		5						
Vestervig			30.05	763.2	39.6	4.2	97	WNW			2		10					Mist	

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.99	761.8	56.3	13.5	60						5ks						Normal School.
Alençon			30.43	773.0	45.3	7.4	44	NE			3		1k			0	0		Normal School.
Amiens			30.32	770.2	47.1	8.4	55	NW			8		0			0	0		Normal School.
Beaumette, (near Angers)			30.40	772.2	43.9	6.6	42	NE	6.0	2.7			5		NE	0	0		Beaumette Observatory.
Beauvais			30.44	773.1	40.6	4.8	42	ENE			1		0			0	0		Normal School.
Besançon			30.36	771.2	40.3	4.6	54	NNE			4		2			0.087	2.2		Normal School.
Bourges			30.41	772.3	44.6	7.0		N			1		5		N	0	0		Normal School.
Brest			30.41	772.4	49.8	9.9	66	NNW			2		10		N	0	0		Naval Observatory.
Caen			30.44	773.1	45.5	7.5	61	N			1		0		N	0	0		Normal School.
Carcassonne																			
Chartres			30.41	772.3	41.5	5.3		NNE			1		0			0	0		Normal School.
Chaumont			30.35	771.0	39.4	4.1		NW			2		0			0	0		Normal School.
Le Mans			30.45	773.3	40.5	4.7	39	NE			2		0			0	0		Normal School.
Mirecourt			30.35	771.0	37.8	3.2		N			2	1c	0	SE		0	0		Normal School.
Orleans			30.42	772.0	42.4	5.8	42	NE			2		0			0	0		Normal School.
Paris			30.41	772.5	40.8	4.9		N			2		0			0	0	Fog	National Observatory.
Parthenay			30.37	771.4	41.0	5.0	56	NE			2		0			0	0		
La Roche sur Yon			30.41	772.5	45.0	7.2	53	N			2		0		SW	0	0		Normal School.
Rouen			30.43	772.9	46.2	7.9	43	SE			2		0			0	0		Normal School.
Saint Lo			30.35	770.8	46.4	8.0	79	N			2		5		N	0	0		Normal School.
Villefranche			30.32	770.0	45.5	7.5	86	WNW			3		0			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.70	627.4			34.7	1.5	30	N	18.6	8.33			1		N	0	0.02		—. Falguère.
Montsouris (near Paris)			30.40	772.7	41.5	5.3	32	NNE	1.7	0.78			0			0	0		Marié Davy.
Perpignan	30.06	763.5			53.6	12.0	31	WNW	16.8	7.50			2		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.41	772.5	45.1	7.3	21	NE			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.40	772.2	43.3	6.3	44	NE			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.41	772.3	43.2	6.2	82	NE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Leo.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.21	767.4	30.2	— 1.0	82	W			1		10			0.079	2.0	Snow	Prof. Hoh.
Berlin			30.29	769.4	36.7	2.6	59	S			2		2			0	0		Prof. Arndt.
Breslau			30.23	767.9	24.6	— 4.1	67	NW			1		7			0.146	3.7		Dr. P. Neugebauer.
Carlsruhe			30.59	777.0	30.0	— 1.1	86	SW			3		10			0.122	3.1	Snow	A. Senz.
Cassel			30.13	765.2	37.4	3.0	80	NW			3		10			0.209	5.3	Snow & rain.	Dr. H. Möhl.
Cologne			30.29	769.3	35.6	2.0	89	NE			3		7			0	0		Dr. Garthe.
Emden			30.30	769.6	40.3	4.6	92	N			2		10			0.012	0.3		Prof. Prestel.
Frankfort on the Main			30.37	771.3	38.7	3.7	79	SW			2		10			0.016	0.4		Physical Society.
Friedrichshafen			30.37	771.3	31.1	— 0.5	81	W					10			0.394	10.0	Snow	M. Wilhelm.
Hamburg			30.16	766.1	37.9	3.3	93	W			3		10			0.165	4.2	Fog	W. Reinert.
Kiel			30.17	766.3	39.7	4.3	81	S			1		10			0.169	4.3		Prof. G. Karsten.
Königsberg			30.17	766.4	27.5	— 2.5	74	W			2		4			0	0		Prof. E. Luther.
Köslin			30.44	773.2	29.8	— 1.2		SW			2		8			0	0		Dr. T gert.
Leipsic			30.21	767.4	32.0	0.0	85	SW			2		10			0	0		Prof. Bruhns.
Münster			30.21	767.4	43.0	6.1	76	W			3		10			0.043	1.1	Rain	Prof. E. Heis.
Posen			30.26	768.7	27.1	— 2.7	69	SW			2		1			0.094	2.4		Dr. Magener.
Strassburg, (in Alsace)			30.35	770.8	37.8	3.2	51	SW					10			0.094	2.4		Hartwig and Tülk.
Stuttgart			30.30	769.5	32.7	0.4	90	W					10			0.161	4.1	Snow & rain.	Mr. Würth.
Thorn			30.21	767.3	26.2	— 3.2	65	NNE			3		2			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.26	768.7	40.1	4.5	61	W			6		10			0	0		Prof. Flesch.
Wustrow			30.15	765.8	34.5	1.4	77	SW			2		6			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.17	766.3	42.8	6.0	53	SSW	4.3	1.9			2	E		0	0		
Mondovi			30.17	766.4	38.3	3.5	54	NW			2		2	E		0	0		
Genoa			30.11	764.8	50.5	10.3	30	N	7.4	3.3			2	W		0	0		
Pavia			30.15	765.0	45.5	6.0	40	SE			2		0			0	0		
Verona			30.11	764.8	45.5	7.5	31	E			2		0			0	0		
Padua			30.12	765.0	42.1	5.7	38	SE	3.1	1.4			0			0	0		
Parma																			
Bologna			29.96	761.0	43.2	6.2	23	NNE			4		2	N		0	0		
Livorno			30.12	765.3	40.4	8.0	26	NNE	3.8	1.7			2	E		0	0		
Urbino			30.21	767.2	32.0	0.0		N			4		1			0	0		
Ancona																			
Siena			30.14	765.5	39.2	4.0	33	ENE	7.4	3.1			0			0	0		
Rome			30.05	763.3	48.3	9.0	16	NW	6.9	3.1			2			0	0		
Naples, O. U.			30.05	763.3	48.0	8.9	35	SW			2		2	NW		0	0		
Lecce			30.03	762.8	43.3	6.3	40	NNW	12.5	5.6			0			0	0		
Cosenza			29.99	761.8	51.3	10.7	39	N			2		10			0.217	5.5		
Catania, (Sicily)																			
Riposto			30.02	762.4	58.6	14.8	61	N			2		6	NW		0	0		
Palermo			29.94	760.7	50.9	10.5	58	WNW			2		9	WNW		0	0		
Sub-Series.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.38	771.7	41.0	5.0		W			3								
Groningen			30.16	766.1	32.5	0.3		NNW			4								
Helder			30.26	768.7	40.8	4.9		WNW			4								
Utrecht			30.25	768.3	46.8	8.2		WNW			3		8						

Note.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.10	764.6	41.0	5.0	90	Calm	0	0.0			10			0	0	Fog	
Christiania			29.97	761.1	39.6	4.2	58	W	2.2	1.0			7			0	0		
Tromsö			29.87	758.7	32.7	0.4	96	Calm			0		0			0.083	2.1		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.83	757.6			57.4	14.1	30	ENE	18.6	8.3			0						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.14	765.5	25.0	— 3.9	80	N	4	2			3						Astronomical Obs.
Wilna			30.17	766.3	25.9	— 3.4	67	Calm	0	0			0						Astronomical Obs.
Dorpat			30.06	763.4	20.3	— 6.5	72	SW	9	4			10						Physical Cabinet.
St. Petersburg			29.98	761.4	19.8	— 6.8	70	SSE	9	4			7						Central Physical Obs.
Kieff			30.14	765.5	24.6	— 4.1	70	N	11	5			3						Physical Cabinet.
Nikolaiev			29.91	759.6	28.4	— 2.0	72	N	13	6			8						
Kertch			29.82	757.3	33.3	0.7	90	N	16.8	7.5			10					Snow	Lagorio.
Moscow			30.18	766.6	17.4	— 8.1	62	NW	10.1	4.5			2						Meteorological Obs.
Lugan			29.71	754.6	25.9	— 3.4	85	NE	25	11			10					Snow	Meteorological Obs.
Archangel			30.07	763.6	14.0	—10.0	61	Calm	0	0			0						Ogorodnikof.
Tiflis			29.54	750.2	66.9	19.4	54	SE	13	6			7					Rain	Physical Obs.
Astrakhan			29.68	753.9	41.0	5.0	89	NE	7.8	3.5			10					Fog	Sebastianof.
Kasan			29.99	761.8	24.1	— 4.4	73	WSW	2	1			2						Physical Cabinet.
Orenburg			30.14	765.5	24.4	— 4.2	86	NE	7.8	3.5			10						Tschernischef.
Ekaterinburg			30.21	767.4	12.6	—10.8	93	E	10.1	4.5			10					Snow	Meteorological Obs.
Kasaly			29.71	754.7	60.3	15.7	78	E	7.8	3.5			5						Bobrof.
Tashkend			30.12	765.0	63.0	17.2	56	Calm	0	0			1						Michelson.
Barnaul			30.66	778.8	3.6	—15.8	57	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.47	773.8	20.3	— 6.5	70	E	13	6			8						Marks.
Irkutsk																			Usolzef.
Oorga			30.20	767.0	16.9	— 8.4	100	NW	10.1	4.5			10						Mossin.
Peking, (China)			29.87	758.7	44.4	6.9	72	Calm	0	0			7						Physical Observatory.
Nertchinsk			29.94	760.4	26.2	— 3.2	45	NW	7.8	3.5			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.18	766.5	54.3	12.4	22	E	18.6	8.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.76	755.8	40.3	4.6	56	NE			2		9			0	0		
Hernosand			29.73	755.2	45.3	7.4	48	E			2		5			0	0		
Stockholm			29.80	756.8	36.3	2.4	75	W			4		10			0.035	0.9		
Wisby			29.96	761 0	29.8	— 1.2	100	W			2		10			0.169	4.3		
Sub-Series.																			
Upsala			29.80	756.9	39.2	4.0	80	WNW			4		10			0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.83	732.2			39.0	3.9	42	NNE			4		1			0	0		The Observatory.
Zurich	28.62	720.9			34.2	1.2	50	W			1		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.8mm.; Thermometer, —4°.9 C.; Relative Humidity, —17 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.83	757.7	64.9	18.3	66	SW			2		10						
Constantinople			29.91	759.8	38.0	3.4	83	N	12.3	5.5			10		N	0	0		
Fao, (Persian Gulf)			29.92	760.0	77.0	25.0		E			3		10						
Salonica			29.85	758.2	43.0	6.1		NW			1		10					Snow.	
Valona			29.88	759.0	41.0	5.2		NE			3		10						
Varna			29.93	760.1	37.4	3.0		N			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			29.94	760.5	23	— 5.0		SW	5	2.2			10s		SW	0	0	Light snow.	
Cape Roziere, Quebec			30.35	770.9	11	—11.7	80	NW	2	0.9		0	0			0	0		
Chatham, N. B.			30.42	772.7	0	—17.8	100	Calm	0	0		0	0			0	0		
Charlottetown, P. E. Island			30.43	772.9	10	—12.2	92	S	4	1.8		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.28	769.1	— 6	—21.1	96	NW	10	4.5		0	0			0	0		
Halifax, N. S.			30.40	772.1	13	—10.6	62	Calm	0	0		0	0			0	0		
Kingston, Ontario			29.86	758.4	21.9	— 5.6	100	S	23	10.3			10n		S	0.13	3.3	Heavy snow.	
Montreal, Quebec			30.01	762.2	18	— 7.8	60	S	19	8.5			Haze			0	0		
Ottawa, Ontario			29.91	759.7	11	—11.7	45	E	8	3.6			10n			0	0	Light snow.	
Parry Sound, Ontario			29.64	752.8	26	— 3.3	94	S	13	5.8			10n		S	0.07	1.8	Light snow.	
Port Dover, Ontario			29.81	757.2	35	1.7	90	S	12	5.4			10n		SW	0.10	2.5	Threatening	
Port Stanley, Ontario			29.80	756.9	35	1.7	80	W	21	9.4			10n		W	0.20	5.1		
Quebec, Quebec			30.19	766 8	7	—13.9	76	E			2	0	0			0	0		
Saugeen, Ontario			29.71	754.6	27	— 2.8	94	W	17	7.6			10n		NW	0.07	1.8		
Stayner			30.67	779.0	33	0.6	91	SW	8	3.6			10n			0.08	2.0	Threatening	
Sydney, C. B.			30.41	772.4	10	—12.2	77	W	6	2.7		0	0			0	0		
Toronto, Ontario			29.72	754.9	34	1.1	96	SW	14	6.3			10ks		SW	0.10	2.5		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.18	766.6	23	— 5.0	60	SE	28	12.5			10s			0	0		
Alpena, Mich.			29.72	754.9	27	— 2.8	88	W	8	3.6			10s			0.03	0.8		
Atlantic City, N. J.			30.28	769.1	34	1.1	79	S	18	8.0			10s			0	0		
Augusta, Ga.			30.31	769.9	43	6.1	83	SE	1	0.4		0	0			0	0		
Baltimore, Md.			30.19	766.8	34	1.1	79	SE	2	0.9			10n			0.05	1.3	Light snow.	
Barnegat, N. J.			30.27	768.8	32	0.0	79	SE	11	4.9			10s		SE	0	0		
Benton, Montana			29.84	757.9	24	— 4.4	87	Calm	0	0			10s			0	0		
Bismarck, Dakota			30.11	764.8	18	— 7.8	68	SE	8	3.6			10ks			0	0		
Boston, Mass.			30.33	770.4	27	— 2.8	71	SE	6	2.7		1cs	Sm'e			0	0		
Breckenridge, Minn.			30.36	771.1	— 2	—18.9	89	NW	10	4.5		0	0			0.03	0.8		
Buffalo, N. Y.			29.75	755.6	33.5	0.8	84	SW	24	10.7			10ks			0.04	1.0		
Burlington, Vt.			30.13	765.3	17	— 8.3	67	S	11	4.9			10s			0	0		
Cairo, Ill.			30.30	769.6	44	6.7	44	NW	16	7.2		8ck	0	W		0	0		
Cape Hatteras, N. C.			30.34	770.6	44	6.7	75	E	6	3.0			10ks		SW	0	0		
Cape Henry, Va.			30.31	769.9	38	3.3	72	S	13	5.8			10s			0	0		
Cape May, N. J.			30.28	769.1	34	1.1	90	S	16	7.2			10s		S	0	0	Threatening	
Charleston, S. C.			30.36	771.1	49	9.4	77	Calm	0	0		2c	Fog			0	0	Fog	
Cheyenne, W. T.			30.04	763.0	23	— 5.0	60	SW	12	5.4		5k	0			0	0		
Chicago, Ill.			30.03	762.7	34	1.1	61	SW	14	6.3		0	0			0.01	0.3		
Cincinnati, Ohio			30.08	764.0	40	4.4	73	W	12	5.4		8c	0	W		0.02	0.5		
Cleveland, Ohio			29.86	758.4	38	3.3	76	W	16	7.2		10k	0	W		0.04	1.0		
Colorado Springs, Col.			30.09	764.3	30	— 1.1	67	NW	1	0.4		10c	1s	NW		0	0		
Corsicana, Texas			30.14	765.5	62	16.7	88	E	4	1.8		10k	0	SE		0	0		
Davenport, Iowa			30.23	767.8	26	— 3.3	77	NW	20	8.9		0	0			0	0		
Denver, Col.			30.14	765.5	28	— 2.2	65	NW	2	0.9		2cs	0	W		0	0		
Detroit, Mich.			29.83	757.7	34	1.1	79	W	15	6.7		0	4s			0.01	0.3		
Dodge City, Kansas			30.08	764.0	38	3.3	33	S	1	0.4		0	0			0	0		
Dubuque, Iowa			30.14	765.5	21	— 6.1	71	NW	12	5.4		0	0			0	0		
Duluth, Minn.			30.10	764.8	19	— 7.2	68	W	6	2.7		8k		NW		0.04	1.0		
Eastport, Me.			30.40	772.1	24	— 4.4	87	NW	1	0.4		0	Haze			0	0		
Erie, Penn.			29.80	756.9	39	3.9	91	S	20	8.9			10ks			0.10	2.5	Threatening	
Escanaba, Mich.			29.86	758.4	20	— 6.7	70	NW	16	7.2		0	0			0.58	14.7		
Fort Gibson, I. T.			30.32	770.1	45	7.2	48	NE	4	1.8		2cs	0	W		0.09	2.3		
Fort St. Michael, Alaska																	0		
Fort Sully, D. T.			30.42	772.7	13	—10.6	81	Calm	0	0		0	0			0	0		
Galveston, Texas			30.14	765.5	66	18.9	90	SE	6	2.7		5c	0	W		0	0		
Grand Haven, Mich.			29.91	759.7	32	0.0	79	W	18	8.0		5ck	0	W		Blank	Blank		
Indianapolis, Ind.			30.13	765.5	34	1.1	69	W	8	3.6		10k	0	W		0.07	1.8	Clearing	
Indianola, Texas			30.12	765.0	67	19.4	94	SE	4	1.8		5c	8s	W		0	0		
Jacksonville, Fla.			30.34	770.6	51	10.6	79	Calm	0	0		0	Sm'e			0	0		
Keokuk, Iowa			30.26	768.6	33	0.6	79	NW	8	3.6		5k	0	NW		0	0		
Key West, Fla.			30.26	768.6	71.2	21.8	54	E	14	6.3		Haze	2ks			0	0		
Kittyhawk, N. C.			30.34	770.6	42	5.6	50	S	18	8.0		Haze	5s			0	0		
Knoxville, Tenn.			30.17	766.3	44	6.7	84	SW	8	3.6			10s			0.06	1.5		
La Crosse, Wis.			30.20	767.1	19	— 7.2	54	NW	12	5.4		0	0			0	0		
Leavenworth, Kan.			30.41	772.4	30	— 1.1	79	NW	6	2.7		0	0			0	0		
Lexington, Ky.			30.12	765.0	44	6.7	68	W	20	8.9		2c	0	W		0	0		
Long Branch, N. J.			30.24	768.1	32	0.0	79	S	20	8.9			10s			0	0		
Louisville, Ky.			30.14	765.5	39	3.9	64	W	14	6.3		10cs	0			0	0		
Lynchburg, Va.			30.16	766.1	41	5.0	60	S	5	2.2			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.86	758.4	19	— 7.2	69	W	20	8.9		0	0			0.08	2.0		
Memphis, Tenn.			30.27	768.8	55	12.8	68	NW	12	5.4		2cs	8s			0.02	0.5		
Milwaukee, Wisconsin			29.97	761.2	27	— 2.8	77	NW	24	10.7		0	0			0.41	10.4		
Mobile, Ala.			30.28	769.1	55	12.8	87	E	3	1.3			10s			0	0		
Montgomery, Ala.			30.29	769.4	52	11.1	79	S	4	1.8		8ck	Sm'e			0	0		
Morgantown, W. Virginia			29.93	760.2	43	6.1	83	S	18	8.0			10n			0.01	0.3	Light rain	
Mt. Washington, N. H.			29.91	759.7	4	—15.0	74	W	40	17.9		10s	0			0	0		
Nashville, Tenn.			30.20	767.1	52	11.1	72	NW	7	3.1			10ks			0.01	0.3		
New Haven, Conn.			30.32	770.1	23	— 5.0	60	Calm	0	0			10s			0	0	Smoky	
New London, Conn.			30.35	770.9	30	— 1.1	78	SW	12	5.4		8ks	0	SW		0	0		
New Orleans, La.			30.22	767.6	61	16.1	88	E	4	1.8		5k	2ks	SW	SE	0	0		
Newport, R. I.																			
New York, N. Y.			30.28	769.1	30	— 1.1	78	S	8	3.6			10s			0	0		
Norfolk, Va.			30.32	770.1	38	3.3	68	S	9	4.0			10s			0	0		
North Platte, Neb.			30.13	765.3	24	— 4.4	74	Calm	0	0		5c	0			0	0		
Omaha, Neb.			30.41	772.4	24	— 4.4	74	NW	12	5.4		2c	0	W		0	0		
Oswego, N. Y.			29.89	759.2	27	— 2.8	94	SSE	16	7.2			10n			0	0	Heavy snow.	
Peck's Beach			30.30	769.6	34	1.1	90	S	24	10.7			10s			0	0		
Pembina, D. T.			30.32	770.1	— 2	—18.9	67	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.26	768.6	30	— 1.1	89	S	11	4.9			10s		S	0	0		
Pike's Peak, C. T.			29.88	758.9	7	—13.9	100	SW	20	8.9		2c	2s	E		0.18	4.6		
Pittsburgh, Penn.			29.89	759.2	39	3.9	81	S	12	5.4			10s			0.06	1.5		
Port Huron, Mich.			29.77	756.1	35	1.7	80	W	12	5.4			10s			0.60	15.2	Threatening	
Portland, Maine			30.34	770.6	20	— 6.7	70	SW	2	0.9		2c	Haze			0	0		
Portland, Or.			29.41	747.0	48	8.9	63	S	12	5.4			10s			0.39	9.9	Threatening	
Punta Rassa, Fla.			30.32	770.1	62	16.7	61	E	10	4.5		2c	0	SW		0	0		
Rochester, N. Y.			29.79	756.7	31	— 0.6	89	S	14	6.2			10s			0	0		
Salt Lake City, Utah			30.05	763.3	37	2.8	53	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.25	768.3	32	0.0	84	S	12	5.4			10s			0	0		
San Diego, Cal.			30.12	765.0	52	11.1	63	SE	4	1.8			10s			0	0		
San Francisco, Cal.			30.11	764.8	51	10.6	86	SE	10	4.5			10s			0	0		
Santa Fe, N. M.			29.88	758.9	36	2.2	38	SE	8	3.6		2c	0	SW		0	0		
Savannah, Georgia			30.35	770.9	50	10.0	77	N	2	0.9			10ks			0	0		
Shreveport, La.			30.22	767.6	59	15.0	94	NE	3	1.3			10n			0.12	3.0	Light rain	
Springfield, Mass.			30.33	770.4	9	—12.8	78	W	3	1.3			10s		S	0	0		
St. Louis, Mo.			30.30	769.6	36	2.2	90	W	8	3.6		0	0			0.18	4.6		
St. Marks, Fla.			30.32	770.1	52	11.1	86	NE	6	2.7			10ks			0	0		
St. Paul, Minn.			30.20	767.1	9	—12.8	78	SW	10	4.5		0	0			0.01	0.3		
St. Paul's Island, Alaska			30.17	766.3	16	— 8.9	82	NW	47	21.0		ck	8k	NW		0.10	2.5		
Squan Beach, N. J.			30.26	768.6	32	0.0	70	S	10	4.5			10s		S	0	0		
Toledo, Ohio			29.84	757.9	38	3.3	63	SW	12	5.4			10n			0.13	3.3	Threatening	
Tybee Island, Ga.			30.36	771.1	55	12.8	73	Calm	0	0			10s			0	0	Threatening	
Vicksburg, Miss.			30.29	769.4	58	14.4	81	SE	4	1.8			10s			0	0		
Virginia City, Mon.			29.58	751.3	27	— 2.8	77	SW	10	4.5		0	0			0	0		
Washington, D. C.			30.19	766.8	34	1.1	85	S	16	7.2			10n			0.01	0.3	Heavy snow	
Wilmington, N. C.			30.25	768.3	50	10.0	64	S	5	2.2		10cs	0	NW		0	0		
Wood's Hole, Mass.			30.38	771.6	29	— 1.7	78	S	16	7.2		0	2s			0	0		
Wytheville, Va.			29.94	760.5	38	3.3	81	SW	4	1.8			10s			0	0		
Yankton, D. T.			30.50	774.7	17	— 8.3	67	W	3	1.3		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.06	763.5	76	24.4		NE	3	1.3		5k	5s	W		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.98	761.5	74	23.3		SE				2cs	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			30.03	762.7	70	21.1	63	E	6	2.7		1k	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.28	769.1	76	24.4		NE	2	0.9		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.29	769.4			75	23.9		NE	2	0.9		2ck	2k	E	W	1.25	32.7	Threatening	W. S. Cameron.
Santiago de Cuba, W. I.			29.99	761.7	71	21.7	71	N	8.4	3.8		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.33	770.4	55.5	13.1	54	NNW	7.3	3.3		0	2k			0.050	1.3		C. F. Allen.
Honolulu, Oahu, S. I.			30.12	765.0	67	19.4		NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, I.			30.02	762.5	60	15.6	82	NE	3.6	1.6		0	1k		E	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.99	761.7	—19.0	—28.3	100	N	9	4.0		0	1s		W ?	0.04	1.0		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0			87	NNW	4	1.8		2c	2k	NNE		0	0		C. Partridge.
St. John's, Newfoundland			30.22	767.6	11	—11.7	80	NW				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.12	765.1	73.7	23.2	80	SW			1	1k	0	SW		0	0		Leon M. Acuña.
Ellyria, Ohio			29.90	759.4	36.5	2.6	85	W	8	3.6			10s			0	0		H. M. Redington.
Indianola, Iowa	29.50	749.3			22	— 5.6		NW			4	0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Mykawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 25, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T. mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.36	771.2															Charnot.
Algiers			30.30	769.6	56.8	13.8	62	NE			1		2			0	0		Peter.
La Calle			30.31	769.9															Kuntz.
Tunis			30.31	769.9	59.5	15.3	37	NW			4		4			0	0		Jacques.
Sfax			30.30	769.5															Chauvey.
Saïda			30.34	770.6	52.9	11.6		SE			4		6			0	0		Grosjean.
Tebessa			30.33	770.4															Colin.
Geriville			30.33	770.4	47.3	8.5		E			5		8			0	0		Bernadach.
Laghouat			30.32	770.0	51.8	11.0	58	E			4		7			0	0		Poinsignon.
Biskra			30.31	769.8	61.7	16.5	73	NE			2		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.34	770.5	35.8	2.1	72	NE			3		0						Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.28	769.2	30.2	− 1.0	88	W			2		10			0.012	0.3		I. R. Observatory.
Eperies			30.16	766.1	32.	0.0	54	Calm			0		6			0	0		Julius Mikolik.
Gratz			30.28	769.1	37.6	3.1	51	SW			2.5		2.5			0	0		Andreas Rospini.
Hermannstadt			30.18	766.5	26.4	− 3.1	78	NNE			2		2			0	0		Prof. Reissenberger.
Kremsmünster			30.35	77 .9	34.2	1.2	80	W			2		10			0.024	0.6	Snow	Prof. C. Wagner.
Lemberg			30.16	766.1	27.0	− 2.8	79	W			3		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.21	767.2	34.9	1.6	69	NW			1		0			0	0		Habsuda Daniel.
Pola			30.32	770.1	40.8	4.9	28	ESE			2		3cs			0	0		I. R. Hydrographic Office
Szegedin			30. 1	767.3	33.8	1.0	72	E			1		[illegible]			0.092	2.35		Karl Stancel.
Trieste			30.31	769.9	45.7	7.6	42	W			1		7			0	0		Prof. V. Farolfi.
Vienna			30.27	768.9	38.3	3.5	43	W			3		7			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.16	766.1			52.2	11.2	63	NW			1		10		NNW	0	0		Royal Observatory.

NOTE.—The originals give the wind force in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.91	759.7	48.0	8.9		SW	24	10.7			9			0.005	0.13	Rain	William Boswell.
Annanhill																			
Ardrossan			30.04	763 0	46	6.7		SSW			4		8					Rain	William McNeil.
Armagh Observatory			30.10	764.5	50.2	10.1		SSW	28	12.5			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.25	768.3	50.0	10.0		SW			4		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.12	765.0	51.0	10.6		SSW			3		10					Rain	J. Dreyer, for L'd Rosse.
Bradford			30.10	766 8	50.1	10.1		S			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.06	763.5	79.4	26.3		NE			4		9						T. H Hunt.
Bywell																			
Cambridge Observatory			30.33	770.4	53.0	11.7		SW			2		4						H. Todd.
Cape Town, (Cape Colony)			30.02	762.5	77.4	25.2		NW			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.06	763.5			82.5	28.1	28	S	4	1.8			0						The Staff, for E. J. Stone.
Cardington			30.35	770.9	54.0	12.2		W					9						John McLaren.
Carlisle			30.12	765.0	50.0	10.0		SW					10						T. Bell, for J. Cartmell.
Chatham, School M. E.			30.36	771.1	52.2	11.2		SW			3		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.94	760.5	82.2	27.9		SE			1		1						Sgt. W. F. Hopkins
Dartmoor			30.47	773.9	46	6.7		W			4		7						R. E. Power.
Donaghadee			30.05	763.3	48	8.9		S			5		10						J. Mac Gowan, Jr.
Dover			30.30	771.9	47	8.3		SW			3		5						J. Costello.
Dublin																			
Durham Observatory			30.13	765.3	47.2	8.4		SW					10			0	0		G. D. Goldney.
Eccles, (near Manchester)			30.27	768.8	51.0	10.6		W	5.4	2.4			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.43	772.9	51.5	10.8		SW	27	12.1			8						The Staff.
Fort Napier, (Natal)			30.13	765.3	66.0	18.9		S			4		9						Pvt. G. Salmon.
Galway, Queen's College			30.23	767.3	52	11.1		SW			4		3						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.09	764.3	57.2	14.0		ENE			7		10						Sergt. E. G. Baker.
Glasgow Observatory			30.02	762.5	47.1	8.4		SSE			5		10						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.30	769.6	52	11.1		W			2		7						G. T. Watson.
Greenwich Royal Obs.			30.37	771.4	54.7	12.6		W			3		8					Mist	The Staff, for G. B. Airy.
Guernsey			30.45	773.4	50	10.0		SW			1		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.19	766.8	49.4	9.7		WSW					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.92	760.0	30.6	— 0.8		E			8		10					Snow	Corp'l J. Y. Thompson.
Helston			30.41	772.4	53	11.7		SW			3		4						Dr. W. B. Moyle.
Holyhead			30.21	767.3	48	8.4		SSW			6		10					Mist	John Tilston.
Hull Park																			
Kew Observatory			30.38	771.6	52.9	11.6		W	16	7.2			9						The Staff.
Kingstown			30.18	766.6	51	10.6		SW			3		10						George Mitchell.
Lampeter																			
Leicester Museum			30.31	769.9	51.7	10.9		SW			3		10						William J. Harrison
Llandudno			30.22	767.6	50.7	10.4		SW					10						Dr. James Nicol.
Malta, (Mediterranean)			30.24	768.1	54.0	12.2		NE			1		1						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.80	756.9	51	10.6		SW			3		5						William D. Penny.
Nassau, (Bahamas)			30.26	768.6	73.2	22.9		NE			3		4						Surg.-Maj. J. Jameson.
North Shields			30.13	765.3	52	11.1		WSW			5		8						John Wm. Irvine.
Nottingham			30.30	769.6	55.0	12.8		WSW			4		10k		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.30	769.6	51.1	10.6		SW			5–6		10					Fog	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.34	770.6	53	11.7		W			4		9						J. Lucas, for R. Main.
Plymouth			30.41	772.4	52	11.1		NW			1		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.24	768.1	50	10.0		SW			5		10						W. Kennedy.
Saint Ann's Head			30.35	770.9	49	9.4		SW			4		6					Mist	John C. Walker.
Saint Helier, (Jersey)			30.47	773.9	46.5	8.1		W			1		10					Fog	A. P. Amy.
Sandwick Manse, (Orknys)			30.73	780.5	46	7.8		S	25	11.2			10					Rainy	Rev. C. Clouston.
Scarborough			30.21	767.3	51.2	10.7		WSW			2		10						F. Shaw.
Scutari, (Turkey)			29.88	758.9	32.8	0.4		N			4		10					Snow	Sergt. W. H. Lyne.
Sheffield			30.25	768.3	54.4	12.4		W			3		8						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.11	764.8	49	9.4		SW			6		10			0.113	2.87		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.30	769.6	56	13.3		WSW			1		4						Rev. C. J. Steward.
Stonyhurst Observatory			30.23	767.8	49.3	9.6		SW			3		10						The Staff.
Stornoway, Lewis C. (Hebr).			29.68	753.9	49	9.4		SW			10		10					Rain	John Smith.
Strathfield Turgiss			30.37	771.4	55.5	13.1		SW			1–2		9sk						Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)			29.76	755.9	47	8.3		SSW			6		10					Rain	William Lawrence.
Taunton College																			
Thurso			29.78	756.4	49	9.4		Calm			0		8						John Trotter.
Truro, Royal Institution			30.35	770.9	53	11.7		SW			6		10						W Newcombe.
Valencia Observatory			30.10	764.5	51	10.6		SSE	45	20.1			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.42	772.7	49.9	9.9		W			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.02	762.6	40.6	4.8	79	N			2		8						
Fanöe			30.12	765.0	39.2	4.0	93	W			4		10						
Godthaab, (Greenland)			29.70	754.4	3.6	—15.8		NE			7		0						
Stykkisholm, (Iceland)			28.26	717.8	39.6	4.2	93	E			2		10					Rain	
Thorshavn, (Faröe)			29.23	742.4	40.3	4.6	92	SW			7		8						
Vestervig			30.06	763.5	45.0	7.2	99	W			4		5						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.15	765.8	57.7	14.3	57						5s						Normal School.
Alençon			30.40	774.5	51.8	11.0	68	SW			1		10			0	0		Normal School.
Amiens			30.36	771.2	51.1	10.6	65	WNW			8		1		WNW	0	0		Normal School.
Beaumette, (near Angers)			30.47	773.9	52.3	11.3	33	N	2.0	0.9			10		NE	0	0		Beaumette Observatory.
Beauvais			30.46	773.8	53.1	11.7	40	WNW			1		10		NNW	0	0		Normal School.
Besançon			30.47	774.0	43.0	6.1	76	NE			2		5		NE	0	0		Normal School.
Bourges			30.40	772.1	44.2	6.8		N			2		10		N	0	0		Normal School.
Brest			30.41	772.5	52.7	11.5	75	SW			3		10s			0	0		Naval Observatory.
Caen			30.47	773.8	46.8	8.2	59	NW			1		8		NW	0	0		Normal School
Carcassonne																			
Chartres			30.47	773.8	48.6	9.2		W			1		10			0	0		Normal School.
Chaumont			30.44	773.2	45.7	7.6		WNW			1		10		WNW	0	0		Normal School.
Le Mans			30.51	774.9	48.7	9.3	69	Calm			0		0			0	0		Normal School.
Mirecourt			30.40	772.2	42.4	5.8		N			2		10n		N	0	0		Normal School.
Orleans			30.50	774.7	50.7	10.4	46	SW			2		5		NW	0	0		Normal School.
Paris			30.46	773.7	51.4	10.8		WSW			2		10k			0	0		National Observatory.
Parthenay			30.36	771.1	49.8	9.9	46	NE			2		0			0	0		
La Roche sur Yon			30.50	774.6	52.5	11.4	37	NNE			2		5		SSW	0	0		Normal School.
Rouen			30.47	774.0	55.2	12.9	48	W			3		10			0	0		Normal School.
Saint Lo			30.12	772.7	48.2	9.0	75	NE			2		0		N	0	0		Normal School.
Villefranche			30.46	773.6	45.0	7.2	9	N			3		5			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)					40.1	4.5	34	NNW	9.3	4.17			0			0	0		Père Pascall.
Mont-Louis	25.02	635.4			40.1	4.5	34	NNW	9.3	4.17			10			0	0		—. Falguère.
Montsouris (near Paris)			30.45	773.4	52.2	11.2	57	W					0			0	0		Marie Davy.
Perpignan	30.06	763.5			59.0	15.0	29	WNW	10.8	7.50			10			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.46	773.7	52.2	11.2	56	WNW			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.48	774.3	50.4	10.2	43	SW			1		0			0	0	Fog	C. Marquet.
Versailles, (near Paris)			30.60	773.3	54.0	12.2	54	N			1		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. La Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.21	767.4	36.7	2.6	95	W			2		10			0.098	2.5		Prof. Hoh.
Berlin			30.21	767.2	45.9	7.7	65	SW			2		8			0	0		Prof. Arndt.
Breslau			30.16	766.0	33.1	0.6	80	W			2		10			0.008	0.2	Snow	Dr. P. Neugebauer.
Carlsruhe			30.43	773.0	39.9	4.4	82	SW			2–5		10			0.016	0.4	Snow & rain	A. Sens.
Cassel			30.26	768.6	42.6	5.9	79	S			3		10			0.055	1.4		Dr. H. Möhl.
Cologne			30.25	771.0	42.4	5.8	91	W			2		8			0	0		Dr. Garthe.
Emden			30.29	769.3	49.3	9.6	79	WNW			2		10			0.031	0.8		Prof. Prestel.
Frankfort on the Main			30.48	774.1	43.9	6.6	83	SW			1		10			0	0	Fog	Physical Society.
Friedrichshafen			30.46	773.7	40.1	4.5	84	W					10			0	0	Snow & rain	M. Wilhelm.
Hamburg			30.21	767.2	48.7	9.3	77	W			4		10			0.012	0.3	Fog	W. Reinert.
Kiel			30.18	766.6	47.1	8.4	78	W			4		5			0	0		Prof. G. Karsten.
Königsberg			29.97	761.3	36.9	2.7	83	NW			2		9			0.067	1.7	Snow	Prof. E. Luther.
Köslin			30.32	770.2	35.6	2.0		W			4		10			0.024	0.6		Dr. T gert.
Leipsic			30.28	769.1	39.9	4.4	80	SW			2		9			0	0		Prof. Bruhns.
Münster			30.28	769.2	50.7	10.4	75	SW			2		10			0	0		Prof. E. Heis.
Posen			30.14	765.5	35.6	2.0	87	W			5		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.46	773.6	42.4	5.8	80	SW					10			0	0		Hartwig and Tülk.
Stuttgart			30.41	772.4	43.7	6.5	71	NW					10			0.043	1.1	Rain	Mr. Würth.
Thorn			30.06	763.4	33.3	0.7	86	W			4		10			0.437	11.1	Snow	Dr. H senbalg.
Treves, (Trier)			30.60	777.3	42.1	5.6	75	SW			4		10			0	0		Prof. Flesch.
Wustrow			30.11	764.8	36.1	2.3	89	WSW			2		5			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.21	767.4	54.0	12.2	33	ESE	3.1	1.4			10			0	0		
Mondovi			30.21	767.4	50.4	10.2	25	NW			2		0	NNE		0	0		
Genoa			30.20	767.0	54.7	12.6	55	SW	11.2	5.0			0			0	0		
Pavia			30.24	768.0	48.9	9.4	48	ENE			8		2	NE		0	0		
Verona			30.27	768.8	45.9	7.7	53	E			4		1	E		0	0		
Padua			30.33	770.4	40.6	4.8	55	ESE	9.4	4.2			10	S		0	0		
Parma																			
Bologna			30.24	768.2	46.6	8.1	28	ENE			0		2	S		0	0		
Livorno			30.21	767.4	54.0	12.2	12	NW	3.1	1.4			1			0	0		
Urbino			30.33	770.3	36.1	2.3		SSE			4		7			0	0		
Ancona																			
Siena			30.21	767.3	50.5	10.3	35	ESE	6.3	2.8			2	N		0	0		
Rome			30.21	767.2	52.3	11.3	35	NE	4.9	2.2			1			0	0		
Naples, O. U			30.24	768.0	47.3	8.5	41	NE			4		8	NE		0	0		
Lecce			30.16	766.0	39.0	3.9	34	NNW	21.0	9.4			8			0	0		
Cosenza			30.16	766.0	40.8	4.9	70	NNW			4		10			0	0		
Catania, (Sicily)																			
Hipsata			30.15	765.8	54.3	12.4	36	S			4		4	S		0	0		
Palermo			30.16	766.0	53.6	12.0	54	WNW			8		4			0	0		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.40	772.2	44.2	6.8		WNW			4								
Groningen			30.19	766.9	48.2	9.0		NW			4								
Helder			30.27	768.9	43.2	6.2		W			3								
Utrecht			30.27	768.9	54.0	12.2		W			3		10						

NOTE.—The originals give the force of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	Force.	Up'er	Low'r	Upper.	Lower.	Inches.	Millimeters.	Weather.	Observer.
Bergen			30.02	762.6	44.6	7.0	69	S	9.4	4.2			10			0.559	14.2		
Christiania			30.00	762.1	44.6	7.0	62	SSW	1.6	0.7			3			0	0		
Tromsö			29.88	758.9	30.7	— 0.6	94	SE			6		3			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	Force.	Up'er	Low'r	Upper.	Lower.	Inches.	Millimeters.	Weather.	Observer.
Lisbon	29.87	758.7			61.5	16.4	25	NE	23.7	10.6			0						

NOTE.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	Force.	Up'er	Low'r	Upper.	Lower.	Inches.	Millimeters.	Weather.	Observer.
Warsaw			30.08	764.1	25.5	— 3.6	100	SW	16	7			10					Snow	Astronomical Obs.
Wilna			29.98	761.6	27.7	— 2.4	82	SW	10.1	4.5			10					Snow	Astronomical Obs.
Dorpat			29.91	759.6	31.1	— 0.5	76	ESE	4	2			10						Physical Cabinet.
St. Petersburg			30.02	762.5	26.1	— 3.3	72	ESE	16	7			10						Central Physical Obs.
Kieff			30.12	765.1	24.1	— 4.4	65	NNE	11	5			6					Solar corona	Physical Cabinet.
Nikolaiev			29.98	761.4	24.4	— 4.2	77	NNW	25	11			5						
Kertch			29.81	757.2	28.9	— 1.7	86	NW	16.8	7.5			10						Lagorio.
Moscow			30.24	768.2	20.7	— 6.3	58	E	10.1	4.5			2						Meteorological Obs.
Lugan			29.61	752.0	30.0	— 1.1	84	NE	16.8	7.5			10					Snow	Meteorological Obs.
Archangel			30.39	771.8	25.9	— 3.4	65	Calm	0	0			0						Ogorodnikof.
Tiflis			29.66	753.4	57.6	14.2	33	N	16.8	7.5			4						Physical Obs.
Astrakhan			29.71	754.7	33.6	0.9	89	WNW	4	2			10					Rain & snow	Sebastianof.
Kasan			30.04	762.9	23.4	— 4.8	81	NNE	7.8	3.5			7						Physical Cabinet.
Orenburg			30.05	763.3	33.1	0.6	85	E	10.1	4.5			10					Rain	Tschernischef.
Ekaterinburg			30.30	769.7	20.5	— 6.4	74	E	4	2			6						Meteorological Obs.
Kasaly			29.67	753.5	46.6	8.1	77	Calm	0	0			10						Bobrof.
Tashkend			29.93	760.2	69.4	20.8	35	Calm	0	0			5						Michelson.
Barnaul			30.76	781.4	9.9	—12.3	66	Calm	0	0			0						Meteorological Obs.
Yeniseisk			30.47	773.9	28.0	— 2.2	71	NW	7.8	3.5			4						Marks.
Irkutsk																			Usolzef.
Oorga			30.29	769.3	18.7	— 7.4	100	E	4	2			10						Mossin.
Peking, (China)			30.16	766.1	45.0	7.2	41	Calm	0	0			0						Physical Observatory
Nertchinsk			30.04	762.9	21.1	— 5.5	56	NW	4	2			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Corrected for instrumental errors. Inches.	Millimeters.	Reduced to sea-level. Inches.	Millimeters.	Fahrenheit.	Centigrade.	Per cent.	From—	Miles per hour.	Meters per second.	Force.	Up'er	Low'r	Upper.	Lower.	Inches.	Millimeters.	Weather.	Observer.
Madrid			30.31	769.8	56.5	13.6	32	NE	3.8	1.7		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.15	765.9	21.9	— 5.6	85	NE			2		1			0	0		
Hernosand			30.13	765.2	26.2	— 3.2	57	E			2		4			0	0		
Stockholm			30.02	762.5	23.9	— 4.5	54	N			6		4			0	0		
Wisby			30.0[illegible]	762.0	26.6	— 3.0	96	NE			2		2			0	0		
Sub-Series.																			
Upsala			30.08	764.0	22.6	— 5.2	67	N			2		4		N	0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.92	734.5			45.1	7.3	46	NNE			6		2			0	0		The Observatory.
Zurich	28.74	730.0			41.4	4.2	85	NW			1		9			0.303	7.7		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +10.1mm.; Thermometer, —1°.7 C.; Relative Humidity, —13 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.85	758.2	60.8	16.0	77	SW			2		5						Rain
Constantinople			29.87	758.8	32.7	0.4	92	N	16.8	7.5			10		NE	0	0		Snow
Fao, (Persian Gulf)			29.82	757.5	76.8	24.9		SW			3		10						
Salonica			29.94	760.4	51.8	11.0		NW			3		5						
Valona			29.96	761.0	39.2	4.0		NW			4		2						
Varna			30.08	764.0	30.2	— 1.0		NE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.12	765.0	20	— 6.7		Calm	0	0			10s		SW	0.30	7.9		
Cape Roziere, Quebec			30.10	764.5	20	— 6.7	92	SW	20	8.9		5k	5ks	SW		0	0		
Chatham, N. B.			30.05	763.3	23	— 5.0	93	N	3	1.3			3s		N	0.02	0.5		
Charlottetown, P. E. Island			30.09	764.3	23	— 5.0	94	E	13	5.8			4n			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			29.53	750.0	25	— 3.9	87	S	24	10.7		5k	5ks	W	W	0	0		
Halifax, N. S.			29.87	758.7	30	— 1.1	94	SE	21	9.4			4n			0	0		Light snow.
Kingston, Ontario			30.14	765.5	19.8	— 6.7	85	W	2	0.9		5c	0			0.09	2.3		
Montreal, Quebec			29.97	761.2	27	— 2.8	76	NW	15	6.7			0			0.15	3.8		
Ottawa, Ontario			30.01	762.2	17	— 8.3	60	NW	6	2.7		10k	0	NW		0.15	3.8		
Parry Sound, Ontario			30.26	768.6	18	— 7.8	84	NW	10	4.5		5k	5ks	W	W	0.10	2.5		
Port Dover, Ontario			30.29	769.4	19	— 7.2	84	W	10	4.5		0	0			0	0		
Port Stanley, Ontario			30.31	769.9	21	— 6.1	71	NW	16	7.2		0	0			0.03	0.8		
Quebec, Quebec			29.90	759.4	25	— 3.9	89	Calm	0	0			10n			0.08	2.0		
Saugeen, Ontario			30.30	769.6	10	—12.2	96	NW	4	1.8		0	0			0	0		
Stayner			30.27	768.8	19	— 7.2	84	NW	10	4.5			Haze			0	0		
Sydney, C. B.			30.31	769.9	20	— 6.7	83	SE	12	5.4		4c	2ks		SE	0	0		
Toronto, Ontario			30.26	768.6	22	— 5.6	79	NW	9	4.0		2c	0	NW		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.00	762.0	25	— 3.9	75	W	30	13.4		2c	2k	W		0.03	0.8		
Alpena, Mich.			30.32	770.1	13	—10.6	81	Calm	0	0		1c	Sm'e			0.01	0.3		
Atlantic City, N. J.			30.12	765.0	31	— 0.6	68	NW	23	10.3		0	1s			0.10	2.5		
Augusta, Ga.			30.37	771.4	42	5.6	83	Calm	0	0		0				0	0		
Baltimore, Md.			30.24	768.1	33	0.6	51	NW	16	7.2		2ck	5ks	NW	NW	0.62	8.4		
Barnegat, N. J.			30.08	764.0	30	— 1.1	69	W	11	4.9			10ks		W	0.01	0.3		
Benton, Montana			29.48	748.8	38	3.3	54	SW	16	7.2		0	0			0	0		
Bismarck, Dakota			29.24	742.7	21	— 6.1	71	Calm	0	0		5c	0			0	0		
Boston, Mass.			29.78	756.4	33	0.6	69	NW	16	7.2		1c	0			0.24	6.1		
Breckenridge, Minn.			29.59	751.6	26	— 3.8	90	SE	36	16.1		2k	0	SE		0	0		
Buffalo, N. Y.			30.25	768.3	18	— 7.8	84	W	12	5.4			10n			0.15	3.8	Light snow.	
Burlington, Vt.			29.95	760.7	29	— 1.7	77	N	5	2.2		2k	5s	NW		0.03	0.8		
Cairo, Ill.			30.38	771.6	38	3.3	46	SE	8	3.6		8k	0	W		0	0		
Cape Hatteras, N. C.			30.20	768.6	43	6.1	51	N	18	8.0		0	0			0.10	2.5		
Cape Henry, Va.			30.27	768.8	45	7.2	53	NW	14	6.3		0	0			0.40	10.2		
Cape May, N. J.			30.17	766.3	32	0.0	79	NW	34	15.2		0	0			0.56	14.2		
Charleston, S. C.			30.36	771.1	50	10.0	71	N	4	1.8		2c	Sm'e			0	0		
Cheyenne, W. T.			29.67	753.6	50	10.0	10	SW	12	5.4		0	0			0	0		
Chicago, Ill.			30.35	770.9	32	0.0	79	S	2	0.9			Fog			0	0	Fog	
Cincinnati, Ohio			30.45	773.4	33	0.6	69	SW	1	0.4			Sm'e			0	0		
Cleveland, Ohio			30.34	770.6	26.3	— 3.2	84	W	8	3.6		2c	0	W		0	0		
Colorado Springs, Col.			29.75	755.6	47	8.3	15	W	28	12.5		0	0			0	0		
Corsicana, Texas			30.17	766.3	60	15.6	88	E	4	1.8			10s			0	0		
Davenport, Iowa			30.24	768.1	32	0.0	79	SE	14	6.3		5ck	5s	W		0	0		
Denver, Col.			29.77	756.1	45	7.2	11	S	6	2.7		0	0			0	0		
Detroit, Mich.			30.39	771.9	22	— 5.6	72	W	8	3.6		8c	0	W		0	0		
Dodge City, Kansas			29.50	749.3	47	8.3	41	S	24	10.7		0	0			0	0		
Dubuque, Iowa			30.22	767.6	31	— 0.6	68	S	4	1.8		0	Fog			0	0	Fog	
Duluth, Minn.			30.04	763.0	21	— 6.1	85	NE	8	3.6			10s			0	0		
Eastport, Me.			29.56	776.2	28	— 2.2	100	E	58	25.9			10n			0.03	0.8	Light snow.	
Erie, Penn.			30.31	769.9	34	1.1	87	W	8	3.6		5ck	2ks	W		0	0		
Escanaba, Mich.			30.33	770.4	2	—16.7	72	W	5	2.2			10s			0	0		
Fort Gibson, I. T.			30.12	765.0	53	11.7	30	SE	12	5.4			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.40	772.1	35	1.7	80	E	4	1.8			8s		W	0	0		
Galveston, Texas			30.20	767.1	64	17.8	94	E	9	4.0			10ks			0	0		
Grand Haven, Mich.			30.38	771.6	40	4.4	55	Calm	0	0		0	0			0	0		
Indianapolis, Ind.			30.41	772.4	31	— 0.6	79	Calm	0	0		10cs	Sm'e			0	0		
Indianola, Texas			30.17	766.3	67	19.4	95	SE	6	2.7			10s			0	0		
Jacksonville, Fla.			30.31	769.9	60	15.6	76	NW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.20	767.1	35	1.7	61	SE	15	6.7		5c	2s	W		0	0		
Key West, Fla.			30.25	768.3	70.1	2.2	75	NE	12	5.4		0	5ks			0	0		
Kittyhawk, N. C.			30.29	769.4	38	3.3	52	NW	24	10.7		0	0			0.34	8.6		
Knoxville, Tenn.			30.42	772.7	34	1.1	43	N	8	3.6		2cs	0			0	0		
La Crosse, Wis.			30.14	765.5	34	1.1	79	SE	12	5.4			10s			0	0		
Leavenworth, Kan.			30.03	762.7	42	5.6	74	S	12	5.4		5k	Haze	SW		0	0		
Lexington, Ky.			30.44	773.2	35	1.7	58	N	1	0.4		10c	0	W		0	0		
Long Branch, N. J.			30.08	764.0	32	0.0	79	NW	22	9.8		5ck	0	NW		0.17	4.3		
Louisville, Ky.			30.42	772.7	32	0.0	79	Calm	0	0		2c	Fog			0	0		
Lynchburg, Va.			30.33	770.4	37	2.8	36	NW	6	2.7		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.28	769.1	15	— 9.4	65	Calm	0	0		2cs	0			0	0		
Memphis, Tenn.			30.56	776.2	43	6.1	44	SE	1	0.4		5cs	Sm'e			0	0		
Milwaukee, Wisconsin			30.37	771.4	22	— 5.6	85	SW	5	2.2		2ck	Fog			0	0		
Mobile, Ala.			30.31	769.9	57	13.9	87	N	6	2.7		0	Haze			0	0		
Montgomery, Ala.			30.38	771.6	49	9.4	57	NE	5	2.2		0	Sm'e			0	0		
Morgantown, W. Virginia			30.38	771.6	28	— 2.2	51	NW	15	6.7		0	8s			0	0		
Mt. Washington, N. H.			29.60	753.4	4	6.7	100	NW	65	29.1			Fog			0.44	11.2		
Nashville, Tenn.			30.41	772.4	41	5.0	48	NE	2	0.9		5ck	Haze	NW		0	0		
New Haven, Conn.			29.97	761.2	32	0.0	69	NW	7	3.1		10s	1s	NW		0.28	7.1		
New London, Conn.			29.92	760.0	31	— 0.6	68	NW	16	7.2		0	0			0.07	1.8		
New Orleans, La.			30.27	768.8	61	16.1	85	E	6	2.7		0	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			30.08	764.0	30	— 1.1	78	NW	18	8.0		8k	0	W		0.22	5.6		
Norfolk, Va.			30.29	769.4	38	3.3	50	NW	12	5.4		0	0			0.22	5.6		
North Platte, Neb.			30.33	745.0	39	3.9	55	Calm	0	0		2c	0	SW		0	0		
Omaha, Neb.			29.86	758.4	40	4.4	56	S	21	9.4		0	Haze			0	0		
Oswego, N. Y.			30.17	766.3	22.2	— 5.4	85	WNW	9	4.0			10s			0.18	4.6		
Peck's Beach			30.17	766.3	31	— 0.6	79	NW	30	13.4		0	2s			1.61	15.5		
Pembina, D. T.			29.46	748.3	25	— 3.9	77	SE	28	12.5		0	5s			0	0		
Philadelphia, Penn.			30.17	766.3	29	— 1.7	78	NW	24	10.7			10n		W	0.11	2.8	Heavy snow	
Pike's Peak, C. T.			29.82	757.4	14	—10.0	100	W	48	21.5		0	2s			0	0		
Pittsburgh, Penn.			30.34	770.6	28	— 2.2	77	NW	16	7.2		10k	0	NW		0.01	0.3		
Port Huron, Mich.			30.36	771.1	18	— 7.8	84	W	7	3.1		0	0			0.01	0.3		
Portland, Maine			29.69	754.1	33	0.6	79	N	13	5.8			10s			0.45	11.4		
Portland, Or.			30.12	765.0	39	3.9	91	SW	8	3.6			10s			0.68	17.3		
Punta Rassa, Fla.			30.30	769.6	64.5	18.1	75	E	4	1.8		2ck	2s			0	0		
Rochester, N. Y.			30.17	766.3	21	— 6.1	85	W	12	5.4			10n			0.16	4.1	Light snow.	
Salt Lake City, Utah			29.72	754.9	54	12.2	37	SW	16	7.2		5c	5s	SW		0	0		
Sandy Hook, N. J.			30.06	763.5	29.5	1.4	83	NW	24	10.7		8k	0	N		0.18	4.6		
San Diego, Cal.			30.46	766.1	56	13.3	73	N	4	1.8			10s			0	0		
San Francisco, Cal.			30.23	767.8	46	7.8	77	W	2	0.4		0	0			0.23	5.8		
Santa Fe, N. M.			29.75	755.6	37	2.8	39	E	8	3.6		8c	0	SW		0	0		
Savannah, Georgia			30.35	770.9	54	12.2	68	NW	8	3.6		0	0			0	0		
Shreveport, La.			30.24	768.4	55	12.8	73	Calm	0	0			10s			0.40	10.2		
Springfield, Mass.			29.93	760.2	29	— 1.7	77	NW	20	8.9		2k	2s	W	N	0.21	5.3		
St. Louis, Mo.			30.35	770.9	36	2.2	45	SE	9	4.0		10ck	0	W		0	0		
St. Marks, Fla.			30.62	779.1	58	14.4	93	N	6	2.7		5k	0			0	0		
St. Paul, Minn.			29.88	758.9	27	— 2.8	77	SE	28	12.5			10s			0	0		
St. Paul's Island, Alaska			30.34	770.6	16	— 8.9	82	NNW	38	17.0		0	10k			0.24	6.1		
Squan Beach, N. J.			30.10	764.5	29	— 1.7	67	NW	14	6.2		5k	0	NW		0.08	2.0		
Toledo, Ohio			30.31	769.9	27	— 2.8	77	W	4	1.8		2c	0			0	0		
Tybee Island, Ga.			30.37	771.4	54	12.2	68	NW	12	5.4		0	0			0	0		
Vicksburg, Miss.			30.36	771.1	52	11.1	64	E	1	0.4		5cs	0	E		0.34	8.6		
Virginia City, Mon.			29.44	747.8	24	— 4.4	74	SW	8	3.6		0	10s			0.13	3.3		
Washington, D. C.			30.27	768.8	31.5	— 0.3	55	NW	16	7.2		0	5s		NW	0.01	0.3		
Wilmington, N. C.			30.33	770.4	45	7.2	24	N	8	3.6			10s			0	0		
Wood's Hole, Mass.			29.83	757.7	31	— 0.6	78	NW	14	6.2			10s			0.22	5.6		
Wytheville, Va.			30.19	766.6	20	— 1.7	46	NW	8	3.6		0	0			0	0		
Yankton, D. T.			29.67	753.6	38	3.3	63	S	20	9.8		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.02	762.5	78	25.6		NE	4	0.9		5k	5ks	N		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.99	761.7	74	23.3		E				8c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			30.01	762.2	74	23.3	71	SE	2.4	1.1		5k	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.17	768.8	74	23.3		Calm	0	0		1c	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			76	24.4		E	6	2.7		2c	2k	E	N	0.50	12.7	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.98	761.5	72	22.2	71	NE	9.0	4.3		8k	0	NE		0	0		Robert Mason.
St. Georges, Bermudas			30.24	768.1	60.5	15.8	71	SW	9.0	4.0			10n			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	65	18.3		NE			2	5c	5ks	NE	NE	0	0		E. P. Church.
Makawao, Maui, I.			30.02	762.5	58	14.4	76	Calm	0	0		0	2k			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.92	760.0	−15.5	−26.4	100	SE	0	0			10s			0	0	Threatening	J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	63	17.2	86	N	4	1.8		2c	0	N		0.55	14.0		C. Partridge.
St. John's, Newfoundland			30.59	777.0	20	− 6.7	77	SW				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.13	765.2	76.3	24.6	74	S			1	2ck	0			0.043	1.10		Leon M. Acuña.
Ellyria, Ohio			30.38	771.6	23	− 5.0	86	W	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.18	741.2			37	2.8		SE			4	2c	0	NW		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2,205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 26, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T. mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.29	769.4															Charnot.
Algiers			30.23	767.9	58.6	14.8	74	NE			2		4			0.098	2.5		Peter.
La Calle			30.35	771.0															Kuntz.
Tunis			30.36	771.1	64.8	18.2	40	WSW			3		0			0	0		Jacques.
Sfax			30.41	772.3															Chauvey.
Saida			30.32	770.1	47.1	8.4		SE			6		1			0	0		Grosjean.
Tebessa			30.36	771.1															Colin.
Geriville			30.35	770.8	54.5	12.5		ESE			6		10			0.118	3.0	Rain	Bernadach.
Laghount			30.35	771.0	45.0	7.2	69	NE			4		10			0	0		Poinsigoon.
Biskra			30.37	771.4	59.0	15.1	50	E			2		0			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.7	50.0	10.0	39	SW			4		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.10	764.5	27.0	− 2.8	69	W			3		10			0.071	1.8		I. R. Observatory.
Eperies			29.92	759.9	34.0	1.1	73	N			2		10			0.276	7.00	Snow	Julius Mikolik.
Gratz			30.00	761.2	48.4	9.1	56	S			2.5		7.5			0	0		Andreas Rospini.
Hermannstadt			29.82	757.4	34.7	1.4	82	NNE			1		10			0.130	3.30	Snow	Prof. Reissenberger.
Kremsmünster			30.28	769.0	34.5	1.4	93	WSW			5		10			0.492	12.5	Snow & rain.	Prof. C. Wagner.
Lemberg			29.84	758.0	29.3	− 1.5	97	NE			2		10			0.031	0.8	Snow	Dr. T. Stanecki.
Nyiregyhaza			29.91	759.7	37.0	2.8	82	N			1		8			0.106	2.71		Habasuda Daniel.
Pola			30.23	767.8	44.6	7.0	57	WNW			2		4cs			0	0		I. R. Hydrographic Office
Szegedin			29.82	757.5	42.1	5.6	85	NW			4		8			0.157	4.00		Karl Stancel.
Trieste			30.22	767.5	44.2	6.8	63				1		0			0	0		Prof. V. Farolfi.
Vienna			29.89	759.2	38.3	3.5	86	WNW			4		10			0.256	6.5		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.08	764.1			49.8	9.9	65	W			2		10			0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
A. Ocen			29.82	757.4	48.0	8.9		W	20	8.9			4			0.040	1.02		William Boswell.
Annanhill																			
Ardrossan			29.93	760.2	48	8.9		WSW			3		7						William McNeil.
Armagh Observatory			30.43	772.9	49.9	9.4		WSW	17	7.6			7						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.09	764.3	46.7	8.2		W3W			3		10					Rain	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.11	764.8	50.8	10.4		W			3-4		5					Rainy	J. Dreyer, for L'd Rosse.
Bradford			30.02	765.0	48.0	8.9		W			2		10					Drizzling	J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.06	766.1	80.0	26.7		NE			2		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.17	766.3	54.0	12.2		SW			3		4						H. Todd.
Cape Town, (Cape Colony)			29.87	758.7	83	28.3		NW			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.83	757 7			35.7	96.2	20	S-E	10	4.5			0						The Staff, for E. J. Stone.
Cardington			30.18	766.6	55.0	12.8		SW					10						John McLaren.
Carlisle			30.00	762.0	51.7	10.9		SW					7			0.08	2.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.21	767.3	53.0	11.7		SW			4		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.91	759.7	81.9	27.7		SE			2		8						Sgt. W. F. Hopkins
Dartmoor			30.41	772.4	43	6.1		NE			4		10						R. E. Power.
Donaghadee			29.98	761.5	51	10.6		SW			5		10						J. Mac Gowan, Jr.
Dover			30.26	768.6	37	2.8		SW			3		7					Haze	J. Costello.
Dublin																			
Durham Observatory			29.98	761.5	50.7	10.4		SW					10						G. D. Goldney.
Eccles, (near Manchester)			30.10	764.5	48.3	9.1		SW	4.4	2.0			10					Mist	Thomas Mackereth.
Falmouth Observatory			30.26	768.6	50.3	10.2		SW	28	12.5			10						The Staff.
Fort Napier, (Natal)			30.14	765.5	69.5	20.8		NW			4		9						Pvt. G. Salmon.
Galway, Q een's College			30.23	767.8	53	10.6		SW			4		4						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.93	760.2	58.0	14 4		W			8		10						Sergt. E. G. Baker.
Glasgow Observatory			29.90	759.4	50.0	10.0		SW			7		8						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.14	765.5	55	12.8		WSW			4		6						G. T. Watson.
Greenwich Royal Obs.			30.22	767.6	52.8	11.6		WSW			4		10						The Staff, for G. B. Airy.
Guernsey			30.32	770.1	48	8.9		SSW			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.03	762.7	48.0	8.9		WSW					10					Drizzling	F. J. Page, for L. J. Cross.
Halifax, (Nova Scotia)			29.86	758.4	30.9	— 0.6		NW			4		4						Corp'l J. Y. Thompson.
Helston			30.23	767.8	52	11.1		SW			4		10						Dr. W. B. Moyle.
Holyhead			30.09	764.3	50	10.0		SW			4		4						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	52.1	11.2		SW	18	8.0			5					Mist	The Staff.
Kingstown			30.10	764.5	48	8.9		W			4		9						George Mitchell.
Lampeter																			
Leicester Museum			30.14	765.5	51.2	10.6		SW			3		10						William J. Harrison
Llandudno			30.09	764.3	51.4	10.8		W					7						Dr. James Nicol.
Malta, (Mediterranean)			30.40	772.1	52.0	11.1		NE			1		0						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.76	755.9	51	10.6		W			3		5						William D. Penny.
Nassau, (Bahamas)			30.28	769.1	74.0	23.3		NE			3		5						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.14	765.5	51.7	10.9		SW			4		10k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.13	765.3	49.9	9.9		SW			5		10					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.18	766.6	56	13.3		SW			1		8						J. Lucas, for R. Main.
Plymouth			30.27	768.8	51.5	10.8		SW			3		10					Mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.15	765.8	50	10.0		WNW			4		8						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.34	770.6	49.6	9.8		ESE			2		2						A. P. Amy.
Sandwick Manse, (Orknys)			30.65	778.5	44.2	6.8		SW	24	10.7			0						Rev. C. Clouston
Scarborough																			F. Shaw.
Scutari, (Turkey)			29 91	759.7	36.4	2.4		N			2		9					Snowy	Sergt. W. H. Lyne.
Sheffield			30.08	764.0	51.9	11.1		SW			1		10			2.5	63.5		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.98	761.5	50.7	10.4		WSW			6		5			0.060	1.54		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	57.6	14.2		SSW			2		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.06	763.5	47.2	8.4		SW			3		10						The Staff.
Stornoway, Lews C. (Hebr).			29.64	752.8	47	8.3		SW			8		7						John Smith.
Strathfield Turgiss			30.22	767.6	52.6	11.4		W			1-2		9ks						Rev Charles H. Griffith
Streatley Vicarage			30.22	767.6	56.1	13.4		W			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.62	752.3	45	7.2		WSW			7		5						William Lawrence.
Taunton College																			
Thurso			29.70	754.4	45	7.2		WSW			5		8						John Trotter.
Truro, Royal Institution			30.21	767.3	51	10.6		SW			6		10						W Newcombe.
Valencia Observatory			30.14	765.5	49.5	9.7		W	23	10.3			4						The Staff.
Wick																			
Wisbeach																			
Worth'ng																			William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.13	765.2	32.4	0.2	92	S			2		10					Snow & rain.	
Fanöe			30.04	763.1	37.6	3.1	96	SW			2		10					Rain	
Godthaab, (Greenland)			29.89	759.3	11.3	—11.5		Calm			0		0						
Stykkisholm, (Iceland)			29.00	737.1	19.0	— 7.2	100	NE			9		10					Snow	
Thorshavn (Faröe)			29.17	741.0	44.1	6.7	67	WSW			4.5		10					Rain	
Vestervig			30.14	765.5	39.2	4.0	98	SSW			4		10					Rain	

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.23	767.8	59.5	15.3	61						8c						Normal School.
Alençon			30.36	771.2	59.0	15.0	42	SW			1		0			0	0		Normal School.
Amiens			30.21?	767.3?	56.5	13.6	63	WSW			3		0			0	0		Normal School.
Beaumette, (near Angers)			30.32	770.2	56.7	13.7	52	NW	1.8	0.8			0			0	0		Beaumette Observatory.
Beauvais			30.35	770.8	53.1	11.7	43	W			1		1			0	0		Normal School.
Besançon			30.35	771.0	55.0	12.8	55	NE			2		2		NE	0	0		Normal School.
Bourges			30.44	773.2	46.8	8.2		NE			1		10		NE	0	0		Normal School.
Brest			30.24	768.2	53.4	11.9	69	SW			2		5		W	0	0		Naval Observatory.
Caen			30.32	770.1	52.7	11.5	47	SW			3		5			0	0		Normal School
Carcassonne																			
Chartres			30.32	770.2	57.6	14.2		WSW			1		0			0	0		Normal School.
Chaumont			30.30	769.7	57.4	14.1		WNW			2		5		WNW	0	0		Normal School.
Le Mans			30.41	772.5	48.2	9.0	63	S			1		0			0	0		Normal School.
Mirecourt			30.28	769.0	47.3	8.5		NW			2		2ck		SW	0	0		Normal School.
Orleans			30.70	779.7	54.0	12.2	52	NE			2		0			0	0		Normal School.
Paris			30.41	772.3	56.1	13.4		SW			2		0			0	0	Fog	National Observatory.
Parthenay			30.38	771.7	50.0	10.0	35	NE			2		0			0	0		
La Roche sur Yon			30.33	770.4	59.0	15.0	45	NNE			2		0			0	0		Normal School.
Rouen			30.40	772.2	56.5	13.6	50	W			2		0			0	0		Normal School.
Saint Lo			30.45	770.8	55.4	13.0	49	NW			2		0		N	0	0		Normal School.
Villefranche			30.43	773.0	53.8	12.1	96	NE			1		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	25.02	635.6			47.1	8.4	44	E	11.2	5.00			0			0	0		—. Falguères.
Montsouris (near Paris)			30.32	770.2	57.9	14.4	37	WSW	3.2	1.45			0			0	0		Marié Davy.
Perpignan	30.12	765.1			55.8	13.2	47	E	5.6	2.50			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.33	770.3	59.0	15.0	36	SW			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.34	770.5	56.5	13.6	42	E			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.32	770.2	56.8	13.8	42	NW			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.24	768.1	47.3	8.5	72	W			4		9			0.063	1.6		Prof. Hoh.
Berlin			30.26	768.6	41.9	5.5	81	E			1		10			0.020	0.5	Rain	Prof. Arndt.
Breslau			30.21	767.3	31.8	— 0.1	59	NW			5		10			0.024	0.6		Dr. P. Neugebauer.
Carlsruhe			30.32	770.2	52.7	11.5	56	SW			2-5		9			0	0		A. Senz.
Cassel			30.30	769.5	48.2	9.0	74	SW			2		10			0	0		Dr. H. Möhl.
Cologne			30.31	769.8	51.3	10.7	75	W			3		5			0	0		Dr. Garthe.
Emden			30.40	772.1	45.3	7.4	88	W			4		10			0	0		Prof. Prestel.
Frankfort on the Main			30.41	772.4	53.1	11.7	55	W			2		9			0	0		Physical Society.
Friedrichshafen			30.60	777.2	42.8	6.0	78	S					6			0	0		M. Wilhelm.
Hamburg			30.20	767.0	47.8	8.8	77	WNW			3		10			0.008	0.2	Fog	W. Reinert.
Kiel			30.17	766.2	44.8	7.1	73	W			4		10			0.028	0.7		Prof. G. Karsten.
Königsberg			30.19	766.7	31.6	— 0.2	77	NE			2		7			0	0		Prof. E. Luther.
Köslin			30.48	774.2	36.0	2.2		N			2		8			0.016	0.4		Dr. T gert.
Leipsic			30.13	765.3	43.5	6.4	86	W			1		10			0.150	3.8	Fog	Prof. Bruhns.
Münster			30.25	768.3	49.6	9.8	84	SW			2		10			0	0		Prof. E. Heis.
Posen			30.23	767.7	33.1	0.6	88	NNE			2		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.35	770.9	54.5	12.5	49	S					7			0	0		Hartwig and Tülk.
Stuttgart			30.33	770.3	51.8	11.0	50	NW					6			0	0		Mr. Würth.
Thorn			30.19	766.9	35.8	2.1	61	NNE			5		7			0	0		Dr. H senbalg.
Treves, (Trier)			30.27	768.8	52.5	11.4	49	SW			5		8			0	0		Prof. Flesch.
Wustrow			30.19	766.8	36.0	2.2	96	S			2		10			0.090	2.3		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.26	768.7	50.5	10.3	54	WNW	3.1	1.4			1	N		0	0		
Mondovi			30.28	769.1	46.2	7.9	56	WNW			2		0	S		0	0		
Genoa			30.28	769.0	56.5	13.6	51	S	6.3	2.8			2	S		0	0		
Pavia			30.25	768.3	51.3	10.7	53	NW			4		1	NE		0	0		
Verona			30.16	766.0	54.5	12.5	39	SW			4		4			0	0		
Padua			30.18	766.5	48.0	9.2	49	WSW	11.2	5.0			6	N		0	0		
Parma																			
Bologna			30.21	767.3	53.4	11.9	31	W			4		2	N		0	0		
Livorno			30.31	769.0	55.8	13.2	56	W	5.6	2.5			7			0	0		
Urbino			30.27	768.8	47.8	8.8	56	SW			4		6			0	0		
Ancona																			
Siena			30.35	770.8	52.2	11.2	52	W	1.8	0.8			7	NW		0	0		
Rome			30.32	770.1	56.5	13.6	57	W	3.1	1.4			9	WNW		0	0		
Naples, O.U.			30.35	770.8	53.4	11.9	49	NW			2		6	W		0	0		
Lecce			30.23	767.9	46.9	8.3	51	W	14.3	6.4			7			0	0		
Cosenza			30.32	770.2	53.2	11.8	33	NW			2		2	WNW		0	0		
Catania, (Sicily)																			
Riposto			30.34	770.5	53.6	12.0	49	SW			2		0			0	0		
Palermo			30.31	769.8	49.8	9.9	49	NE			4		0			0	0		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.30	769.6	45.7	7.6		W			4								
Groningen			30.11	764.8	45.9	7.7		WSW			3								
Helder			30.16	766.0	43.9	6.6		SW			4								
Utrecht			30.19	766.9	52.3	11.3		WSW			4		10						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.78	756.3	44.2	6.8	94	S	13.6	6.1			10			0.126	3.2	Fog	
Christiania			29.89	759.2	34.9	1.6	91	SSE	1.3	0.6			10			0	0	Snow	
Tromsö			29.61	752.2	34.9	1.6	96	SW			6		5			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.69	754.1			64.2	17.9	24	NE	8.6	8.3			2						

Note.—The originals give the wind velocity in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.12	765.0	29.7	— 1.3	78	N	13	6			10						Astronomical Obs.
Wilna			30.12	765.0	31.8	— 0.1	63	E	4	2			0						Astronomical Obs.
Dorpat			30.28	769.0	25.3	— 3.7	72	E	4	2			0						Physical Cabinet.
St. Petersburg			30.28	769.0	26.4	— 3.1	55	E	2	1			0						Central Physical Obs.
Kieff			29.88	758.9	22.3	— 5.4	93	N	11	5			10					Snow	Physical Cabinet.
Nikolaiev			29.86	758.5	29.1	— 1.6	60	NW	10.1	4.5			4						
Kertch			29.81	757.2	28.9	— 1.7	84	NNW	13	6			10						Lagorio.
Moscow			30.06	763.5	24.3	— 4.3	63	N	10.1	4.5			9						Meteorological Obs.
Lugan			29.68	753.9	27.1	— 2.7	72	SW	5.6	7.5			10						Meteorological Obs.
Archangel			30.46	773.7	27.0	— 2.8	66	ESE	4	2			0						Ogorodnikof.
Tiflis			29.67	753.7	44.2	6.8	82	Calm	0	0			10					Rain	Physical Obs.
Astrakhan			29.89	759.3	34.0	1.1	80	NW	4	2			10						Sebastianof.
Kasan			29.71	754.7	26.6	— 3.0	89	NE	20	9			10						Physical Cabinet.
Orenburg			29.69	754.2	32.7	0.4	96	SW	10.1	4.5			10						Tschernischef.
Ekaterinburg			30.04	763.0	15.4	— 9.2	94	N	7.8	3.5			10					Snow	Meteorological Obs.
Kasaly			29.11	739.5	51.3	10.7	80	NE	7.8	3.5			10						Bobrof.
Tashkend			29.91	759.7	70.3	21.3	40	Calm	0	0			4						Michelson.
Barnaul			30.63	778.1	18.5	— 7.5	61	NE	4	2			1						Meteorological Obs.
Yeniseisk			30.54	775.8	28.9	— 1.7	63	NW	4	2			0						Marks.
Irkutsk																			Usolzef.
Orga			30.35	770.9	17.4	— 8.1	100	Calm	0	0			2						Mossin.
Peking, (China)			30.23	767.7	46.9	8.3	51	SE	10.1	4.5			8					Rain	Physical Observatory!
Nertchinsk			30.20	767.1	22.5	— 5.3	50	NW	7.8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.20	767.0	59.9	15.5	20	E	10.5	4.7		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.13	765.2	23.0	— 5.0	100	SW			2		10			0	0		
Hernosand			30.06	763.5	20.8	— 6.2	84	S			6		10			0.165	4.2	Snow	
Stockholm			30.10	764.5	26.6	— 3.0	70	S			2		10			0.248	6.3		
Wisby			30.14	765.6	30.6	— 0.8	100	E			1		10			0.343	8.7		
Sub-Series.																			
Upsala			30.11	764.8	26.4	— 3.1	74	S			4		10	SSE		0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.91	734.3			47.1	8.1	39	NNE			2		2			0	0		The Observatory.
Zurich	28.67	728.3			49.6	9.8	64	W			1		3			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.9mm.; Thermometer, —0°.7 C.; Relative Humidity, —20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.51	749.6	51.4	10.8	69	SW			8		10						
Constantinople			29.90	759.4	34.2	1.2	98	N	16	7			10					Rain	
Fao, (Persian Gulf)			29.72	755.0	77.0	25.0		SE			4		10		N	0	0		
Salonica			29.94	760.4	54.0	12.2		NW			3		0						
Valona			30.06	763.5	37.0	2.8		N			3		0						
Varna			29.92	760.0	41.0	5.0		NE			6		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville			30.13	765.3	24	— 4.4		Calm	0	0			10s		SW	0	0		
Cape Roziere, Quebec			29.72	754.9	24	— 4.4	94	N	28	12.5		2k	2s	N	N	0.10	2.5		
Chatham, N. B.			29.87	758.7	24	— 4.4	86	NW	13	5.8		0	0			1.20	30.5		
Charlottetown, P. E. Island			29.76	758.4	20	— 3.3	86	NW	16	7.2			10n			0.15	3.8		
Father Point, Quebec																			
Fort Garry, Manitoba			29.59	751.6	17	— 8.3	94	W	12	5.4		0	0			0	0		
Halifax, N. S.			29.78	756.4	31	— 0.6	88	NW	12	5.4		0	1ks		NW	0.17	4.3		
Kingston, Ontario			30.19	766.8	25	— 3.9	86	S	10	4.5			10s			0	0		
Montreal, Quebec			30.13	765.3	21	— 6.1	73	S	13	5.8		Haze	Haze			0	0		
Ottawa, Ontario			30.06	763.5	11	—11.7	69	N	2	0.9			10n			0	0	Threatening	
Parry Sound, Ontario			29.70	754.4	31	— 0.6	80	S	16	7.2			10n		SE	0	0	Threatening	
Port Dover, Ontario			29.88	758.9	34	1.1	79	S	10	4.5		10k	0	SW		0	0		
Port Stanley, Ontario			29.84	757.9	35	1.7	79	SE	13	5.8			10n		SE	0	0		
Quebec, Quebec			30.12	765.0	19	— 7.2	69	N			1	0	0			0	0		
Saugeen, Ontario			29.69	754.1	36	2.2	95	S	13	5.8			10n		SE	0	0		
Stayner			29.73	755.1	31	— 0.6	79	SE	18	8.0			10n		SE	0	0		
Sydney, C. B.			29.61	752.1	27	— 2.8	86	SW	11	4.9			10n		SW	0.27	6.9		
Toronto, Ontario			29.91	759.7	32	0.0	79	SE	7	3.1			10n			0	0	Threatening	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.24	768.1	25	— 3.9	75	S	9	4.0		2ck	Haze	W		0	0		
Alpena, Mich.			29.56	750.8	37	2.8	62	SW	16	7.2		10s				0.01	0.3		
Atlantic City, N. J.			30.37	771.4	35	1.7	80	SW	3	1.3		2c	0			0	0		
Augusta, Ga.			30.40	772.1	47	8.3	77	SE	1	0.4		0	0			0	0		
Baltimore, Md.			30.33	770.4	35	1.7	70	SW	1	0.4		2ck	8s	W	W	0	0		
Barnegat, N. J.			30.35	770.9	35	1.7	80	SW	2	0.9		2c	Haze			0	0		
Benton, Montana			29.99	761.7	32	0.0	79	SW	16	7.2		5c	0			0	0		
Bismarck, Dakota			29.83	757.7	24	— 4.4	48	NW	18	8.0		0	Haze			0	0		
Boston, Mass.			30.26	768.6	28	— 2.2	67	NW	8	3.6		0	0			0	0		
Breckenridge, Minn.			30.89	759.2	20	— 6.7	85	SW	10	4.5		0	0			0	0		
Buffalo, N. Y.			30.86	758.4	38	3.3	54	S	18	8.0			10s			0.01	0.3		
Burlington, Vt.			30.17	766.3	25	— 3.9	75	S	8	3.6		0	5s			0	0		
Cairo, Ill.			29.96	761.0	61	16.1	71	SW	20	8.9			10s			0.02	0.5	Threatening	
Cape Hatteras, N. C.			30.44	773.2	44	6.7	75	E	3	1.3		2c	0			0	0		
Cape Henry, Va.			30.40	772.1	45	7.2	53	S	13	5.8		2c	Haze	SW		0	0		
Cape May, N. J.			30.38	771.6	36	2.2	72	S	8	3.6		0	0			0	0		
Charleston, S. C.			30.41	772.4	57	13.9	73	SE	8	3.6		0	Sm'e			0	0		
Cheyenne, W. T.			30.07	763.8	21	— 6.1	60	S	20	8.9		0	0			0	0		
Chicago, Ill.			30.77	756.1	45	7.2	76	SW	12	5.4		2k	2ks	W		0.24	6.1		
Cincinnati, Ohio			30.86	758.4	55	12.8	41	S	16	7.2		10cs	0			0.04	1.0		
Cleveland, Ohio			29.80	756.9	40.6	4.8	78	S	12	5.4			10n		SW	0.09	2.3	Light rain	
Colorado Springs, Col.			30.06	763.5	33	0.6	32	SE	18	8.0		2c	0			0	0		
Corsicana, Texas			30.0	762.0	66	18.9	90	S	9	4.0		5cs	2k			0	0		
Davenport, Iowa			29.97	761.2	37	2.8	71	NW	16	7.2		2k	0			0.30	7.6		
Denver, Col.			30.12	765.0	32	0.0	21	SE	18	8.0		2c	0	W		0	0		
Detroit, Mich.			29.74	755.4	39	3.9	63	S	9	4.0			10n			0.01	0.3	Light rain	
Dodge City, Kansas			30.0	762.0	34	1.1	34	NE	10	4.5		0	0			0	0		
Dubuque, Iowa			30.97	761.2	37	2.8	74	N	16	7.2		0	0			0	0		
Duluth, Minn.			29.69	754.1	28	— 2.2	44	W	16	7.2		0	0			0	0		
Eastport, Me.			30.08	764.0	21	— 6.1	85	N	20	8.9		0	0			0	0		
Erie, Penn.			29.83	757.7	40	4.4	56	SE	32	14.3			10ks			0	0	Threatening	
Escanaba, Mich.			29.41	747.0	34	1.1	79	SW	8	3.6		5k	0	SW		0	0		
Fort Gibson, I. T.			29.95	760.7	55	12.8	83	NW	16	7.2			10s			0.11	2.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.04	763.0	33	0.6	80	W	14	6.3		0	0			0	0		
Galveston, Texas			30.10	764.5	67	19.4	94	SE	8	2.6			10ks			0	0	Threatening	
Grand Haven, Mich.			29.67	753.6	38	3.3	90	S	10	4.5			10n			0.15	3.8	Light rain	
Indianapolis, Ind.			29.86	758.4	50	10.0	86	SW	6	2.7			10n		SW	0.28	7.1	Light rain	
Indianola, Texas			30.08	764.0	70	21.1	97	S	9	4.0			10s			0	0		
Jacksonville, Fla.			30.36	768.6	63	17.2	83	NE	5	2.2		0	0			0	0		
Keokuk, Iowa			30.99	761.7	41	5.0	64	NW	12	5.4		0	0			0.05	1.3		
Key West, Fla.			30.28	769.1	73.2	22.9	59	E	12	5.4		0	5ks			0	0	Smoke	
Kittyhawk, N. C.			30.44	773.2	41	5.0	62	S	10	4.5		2c	0			0	0		
Knoxville, Tenn.			30.24	768.1	41	5.0	57	E	4	1.8		10k	Haze	SW		0	0		
La Crosse, Wis.			29.94	760.5	35	1.7	70	NW	20	8.9		0	0			0	0		
Leavenworth, Kan.			30.14	765.5	39	3.9	91	N	10	4.5		0	0			0.05	1.3		
Lexington, Ky.			30.01	762.2	50	10.0	58	S	26	11.6			10s			0	0		
Long Branch, N. J.			30.33	770.1	33	0.6	79	S	4	1.8			Haze			0	0		
Louisville, Ky.			29.94	760.5	57	13.9	52	SE	16	7.2			10s			0	0		
Lynchburg, Va.			30.34	770.4	36	2.2	61	Calm	0	0		2k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.45	748.0	38	3.3	63	W	4	1.8		0	0			0	0		
Memphis, Tenn.			30.04	763.0	60	15.6	76	SE	7	3.1		2cs	2s			0	0		
Milwaukee, Wisconsin			29.74	755.4	41	5.0	74	W	22	9.8		5cs	0	N		0.14	3.5		
Mobile, Ala.			30.24	768.1	63	16.7	94	S	9	4.0			10s			0	0		
Montgomery, Ala.			30.30	769.6	56	13.3	78	SE	1	0.4		2c	Sm'e			0	0		
Morgantown, W. Virginia			30.09	764.3	38	3.3	80	N	3	1.3			10n			0.18	4.6	Light rain	
Mt. Washington, N. H.			29.88	758.9	2	—16.7	72	NW	42	18.8		0	0			0	0		
Nashville, Tenn.			30.16	764.5	59	15.0	53	S	8	3.6		10k	0	SW		0	0		
New Haven, Conn.			30.33	770.4	32	0.0	79	SW	2	0.9		5ck	0	SW		0	0		
New London, Conn.			30.34	770.6	31	— 0.6	73	W	4	1.8		5ck	0	NW		0	0		
New Orleans, La.			30.19	766.8	65	18.3	89	SE	6	2.7			Fog			0	0	Fog	
Newport, R. I.																			
New York, N. Y.			30.34	770.6	30	— 1.1	67	SW	4	1.8		0	0			0	0		
Norfolk, Va.			30.40	772.1	40	4.4	64	S	8	3.6		5c	0			0	0		
North Platte, Neb.			29.99	761.7	28	— 2.2	65	Calm	0	0		0	Sm'e			0	0		
Omaha, Neb.			30.19	766.8	33	0.6	70	NW	10	4.5		0	0			0	0		
Oswego, N. Y.			30.06	763.5	27	— 2.8	67	SSE	12	5.4			10s			0	0		
Peck's Beach			30.38	771.6	36	2.2	70	SW	8	3.6		2c	2s			0	0		
Pembina, D. T.			29.63	752.6	20	— 6.7	78	W	24	10.7		0	0			0	0		
Philadelphia, Penn.			30.36	771.1	32	0.0	69	SW	9	4.0		2c	2s	W	W	0	0		
Pike's Peak, C. T.			29.85	758.2	9	—12.8	100	SW	40	17.9		2c	1s	S		0	0		
Pittsburgh, Penn.			30.05	763.3	36	2.2	80	SE	4	1.8			10n			0.08	2.0	Light rain	
Port Huron, Mich.			29.74	755.4	38	3.3	63	S	18	8.0			10s			0	0	Threatening	
Portland, Maine			30.24	768.1	27	— 2.7	66	NW	5	2.2		0	Haze			0	0		
Portland, Or.			29.93	760.2	42	5.6	83	SW	22	9.8			10n			0.13	3.3	Light rain	
Punta Rassa, Fla.			30.32	770.1	64.9	18.2	85	NE	8	3.6		Haze	0			0	0		
Rochester, N. Y.			29.96	761.0	35	1.7	44	SE	8	3.6			10s			0.02	0.5		
Salt Lake City, Utah			30.07	763.8	34	1.1	43	N	1	0.4		0	0			0	0		
Sandy Hook, N. J.			30.33	770.4	34.5	1.4	79	W	4	1.8		5c	Haze	NW		0	0		
San Diego, Cal.			30.19	766.8	55	12.8	81	NW	4	1.8			10s			0	0		
San Francisco, Cal.			30.17	766.3	44	6.7	84	W	10	4.5		0	0			0	0		
Santa Fe, N. M.			29.80	756.9	33	0.6	42	E	8	3.6		5c	0	SW		0	0		
Savannah, Georgia			30.39	771.8	60	15.6	70	SE	4	1.8		5ck	0	W		0	0		
Shreveport, La.			30.08	764.0	66	18.9	90	SSE	4	1.8		2cs	2s			0	0		
Springfield, Mass.			30.31	769.8	30	— 1.1	67	S	4	1.8		2ck	2ks	N		0	0		
St. Louis, Mo.			29.94	760.5	53	11.7	79	N	12	5.4			10n			0.15	3.8	Light rain	
St. Marks, Fla.			30.32	770.1	59	15.0	76	SE	5	2.2		5k	0	NW		0	0		
St. Paul, Minn.			29.87	758.7	26	— 3.3	77	W	9	4.0		0	0			0	0		
St. Paul's Island, Alaska			30.59	777.0	16	— 8.9	65	N	23	10.3		0	8k			0.12	3.0		
Squan Beach, N. J.			30.36	771.1	30	— 1.1	68	S	3	1.3		0	Haze			0	0		
Toledo, Ohio			29.73	755.1	42	5.6	74	S	14	6.2			10n			0.02	0.5	Light rain	
Tybee Island, Ga.			30.40	772.1	61	16.1	83	SE	8	3.6		2c	2s			0	0		
Vicksburg, Miss.			30.23	767.8	64	17.8	83	S	5	2.2			10s			0	0		
Virginia City, Mon.			29.76	755.9	15	— 9.4	65	Calm	0	0		Haze	0			0	0		
Washington, D. C.			30.02	762.5	35	1.7	69	S	8	3.6			10s		W	0	0		
Wilmington, N. C.			30.44	773.2	51	10.6	46	SE	4	1.8		0	0			0	0		
Wood's Hole, Mass.			30.32	770.1	33	0.6	69	NW	8	3.6		0	0			0	0		
Wytheville, Va.			30.00	764.3	36	2.2	70	Calm	0	0			10s			0	0		
Yankton, D. T.			30.21	767.3	30	— 1.1	67	SW	4	1.8		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.13	765.3	81	27.2		E	6	2.7		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.04	763.0	75	23.9		E				2ks	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			30.03	762.7	72	22.2	67	E	4.8	2.2		2k	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.17	766.3	75	23.9		Calm	0	0		8cs	2n	E		0	0		James Gail.
St. Thomas, St. T., W. I.	30.32	770.1			77	25.0		E	6	2.7		2ck	2k	E	N	0.22	5.6	Threatening	W. S. Cameron.
Santiago de Cuba, W. I.			29.98	761.5	73	22.8	71	NE	8.4	3.8		0	2n		NE	0	0		Robert Mason.
St. Georges, Bermudas			30.32	770.1	56	13.3	62	N	12.3	5.5		1s	8k			0.170	4.3		C. F. Allen.
Honolulu, Oahu, S. I.			30.14	765.5	63	17.2		NE			1	7c	5ks	NE	NE	0	0		E. P. Church.
Makawao, Maui, I.			30.04	763.0	63	17.2	83	Calm	0	0		0	5n			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.39	746.5	3.0	—16.1	100	NE	30	13.4			10n			0.35	8.3		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	61	16.1		N	3	1.3			10n			1.67	42.4	Rain	C. Partridge.
St. John's, Newfoundland			29.89	759.2	34.5	1.4	90	S					10s			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.16	766.1	77.7	25.4	80	Calm			0	5c	2ks			0.122	3.10		Leon M. Acuña.
Ellyria, Ohio			29.84	757.9	37	2.8	100	S	12	5.4			10n			0.02	0.5	Rainy	H. M. Redington.
Indianola, Iowa	29.27	743.4			34	1.1		NW			2	0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 27, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, M. T. mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0														Rain	Charnot.
Algiers			29.88	758.0	52.5	11.4	82	SSE			1		10			0.264	6.7		Peter.
La Calle			30.03	762.8															Kuntz.
Tunis			30.0	764.6	50.0	10.0	80	S			3		10			0	0		Jacques.
Sfax			30.13	765.4															Chauvey.
Saida			30.07	764.	53.1	11.7		W			6		10			0.276	7.0		Grosjean.
Tebessa			30.07	763.7															Colin.
Gerlville			30.14	765.5	55.7	13.4		NW			3		7			0.512	13.0	Rain	Bernadach.
Laghouat			30.14	765.6	46.4	8.0	94	E			3		10			0.630	16.0	Heavy rain	Poinsignon.
Biskra			30.11	764.9	50.7	10.4	93	E			3		10			0.299	7.6	Heavy rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.1	767.2	45.3	7.4	47	NE			3		0			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.14	765.0	36.1	2.3	87	NE			2		2			0	0		I. R. Observatory.
Eperies			30.16	766.1	35.1	2.0	64	SE			1		2			0.019	0.49		Julius Mikolik.
Gratz			30.17	766.4	42.1	5.9	84	SSW			2.5		2			0	0		Andreas Rospini.
Herman stadt			30.17	766.2	32.7	0.4	78	N			1		3			0	0		Prof. Reissenberger.
Kremsmünster			30.06	763.5	44.6	7.0	77	NE			1		1			0	0		Prof. C. Wagner.
Lemberg			30.17	766.3	33.4	.8	80	W			3		1			0.035	0.9	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.25	768.4	37.4	3.0	69	W			1		6			Blank	Blank		Habzsuda Daniel.
Pola			30.15	765.8	52.3	11.3	55	SE			3		18			0	0		I. R. Hydrographic Office
Szegedin			30.21	767.2	36.	2.3	59	W			2		2			0	0		Karl Stancel.
Trieste			30.16	766.	46.9	8.3	70	NW			1		0			0	0		Prof. V. Farolfi.
Vienna			30.13	765.3	39.	4.0	77	SE			1		9			0.382	9.7		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.84	757.8			50.4	10.2	44	W			1		4		W	0.028	0.70		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 185.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.73	755.1	46.0	7.8		W	30	13.4			4			0	0	Rain & sleet.	William Boswell.
Annanhill			29.92	760.0	44	6.7		NW					6					Rainy	
Ardrossan											5								William McNeil.
Armagh Observatory			30.10	764.5	46.7	8.2		WNW	20	8.9			7						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.01	762.2	45.8	7.7		W			6		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.20	767.1	48.3	9.1		WNW			3-4		2					Rain	J. Dreyer, for L'd Rosse.
Bradford			29.90	759.4	57.1	8.4		W			4		2						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.07	763.8	78.0	25.6		NE			4		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.01	762.2	52.5	11.4		WNW			3		3					Threatening	H. Todd.
Cape Town, (Cape Colony)			29.76	755.9	80	26.7		NW			3		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.74	755.4			83.4	28.6	44	NW	11	4.9			8						The Staff, for E. J. Stone.
Cardington			30.05	763.3	53.0	11.7		W					2						John McLaren.
Carlisle			29.91	759.7	44.0	6.7		W					4			0.01	0.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.07	763.8	52.7	11.5		W			3		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.91	759.7	86.8	30.4		SE			2		7						Sgt. W. F. Hopkins
Dartmoor			30.38	771.6	45.2	7.3		NW			4		5						R. E. Power.
Donaghadee			30.03	762.7	47	8.3		NW			5		5						J. Mac Gowan, Jr.
Dover			30.05	763.3	53	11.7		W			4		5						J. Costello.
Dublin																			
Durham Observatory			29.8	758.2	46.8	11.2		WNW					4						G. D. Goldney.
Eccles, (near Manchester)			30.01	762.2	46.0	7.8		W	9.6	4.3			6					Mist	Thomas Mackereth.
Falmouth Observatory			30.27	768.8	50.5	10.3		WNW	26	11.6			1						The Staff.
Fort Napier, (Natal)			29.97	761.2	75.4	24.1		NE			2		3						Pvt. G. Salmon.
Galway, Queen's College			30.16	766.1	53	11.7		NW			5		8						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.84	757.9	57.5	14.2		ENE			4		10						Sergt. E. G. Baker.
Glasgow Observatory			29.87	758.7	41.0	5.0		W			4		7					Rainy	James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			29.97	761.2	45	7.2		W			4		8					Rain & hail	G. T. Watson.
Greenwich Royal Obs.			30.06	763.6	53.4	11.9		NNW			4		8						The Staff, for G. B. Airy.
Guernsey			30.23	767.8	51	10.6		WNW			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.92	760.0	43.7	6.5		WNW					9						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.79	756.7	37.4	3.0		W			2		9						Corp'l J. Y. Thompson.
Helston			30.22	767.6	54	12.2		NW			4		4						Dr. W. B. Moyle.
Holyhead			30.09	764.3	48	8.9		W			6		3						John Tilston.
Hull Park																			
Kew Observatory			30.06	763.5	51.0	10.6		WNW	23	10.3	1		7						The Staff.
Kingstown			30.12	765.0	47	8.3		WNW			5		7						George Mitchell.
Lampeter																			
Leicester Museum			30.02	762.5	44.8	7.1		W			2		1						William J. Harrison
Llandudno			30.07	763.8	49.7	9.8		W					0						Dr. James Nicol.
Malta, (Mediterranean)			30.18	766.6	58.0	14.4		NE			1		7						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.75	755.6	45	7.2		SW			2		5						William D. Penny.
Nassau, (Bahamas)			30.23	767.8	74.5	23.6		NE			2		4						Surg.-Maj. J. Jameson.
North Shields			29.85	758.2	48	8.9		WNW			6		5						John Wm. Irvine.
Nottingham			30.01	762.2	51	10.6		WNW			3		5ck		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.03	762.7	47	8.3		NNW			4		8					Rainy	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.05	763.3	52	11.1		WNW			4		7						J. Lucas, for R. Main.
Plymouth			30.22	767.6	55	12.8		WNW			2		2						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.24	768.1	50	10.0		NNW			5		5						W. Kennedy.
Saint Ann's Head			30.19	766.8	47	8.3		W			5		1						John C. Walker.
Saint Helier, (Jersey)			30.23	767.8	53	11.7		NNE			3		2						A. P. Amy.
Sandwick Manse, (Orknys)			30.62	777.7	38.8	3.8		WNW	40	17.9			10					Rain	Rev. C. Clouston
Scarborough			29.87	758.7	49.4	9.7		WNW			4		5						F. Shaw.
Scutari, (Turkey)			29.99	761.7	36.2	2.3		NNE			4		10					Snow	Sergt. W. H. Lyne.
Sheffield			29.99	761.7	48.3	9.1		NW			4		5						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.94	760.5	45.7	7.6		WNW			5		7				5.59	Rainy	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.97	761.2	50.3	10.1		WSW			2		10			0.022		Rain	Rev. C. J. Steward.
Stonyhurst Observatory			29.98	761.5	44.4	6.9		NW			4		10						The Staff.
Stornoway, Lewis C. (Hebr)			29.78	756.0	41	5.0		WNW			6		10						John Smith.
Strathfield Turgiss			30.09	764.3	52	11.1		NW			2		28						Rev. Charles H. Griffith
Streatley Vicarage			30.09	764.3	33.8	12.1		WNW			7		9						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.47	748.5	44	6.7		WNW			7		10					Rain	William Lawrence.
Taunton College																			
Thurso			29.64	752.8	40	4.4		W			6		8					Snow	John Trotter.
Truro, Royal Institution			30.20	767.1	53	11.7		NW			4		4						W Newcombe.
Valencia Observatory			30.25	768.3	50.3	10.2		SW	20	8.9			7						The Staff.
Wick																			
Wisbeach																			
Worthing			30.10	764.5	54	12.2		NW			2		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.73	755.2	42.0	5.6	82	W			2		9						
Fanöe			29.75	755.7	39.2	4.0	90	WSW			4		9						
Godthaab, (Greenland)			29.27	743.4	18.9	— 7.3		NE			4		10						
Stykkisholm, (Iceland)			29.93	760.2	23.7	— 4.6	90	E			4		8						
Thorshavn, (Faröe)			29.67	753.6	30.7	— 0.7	71	N			4		10						
Vestervig			29.66	753.4	39.6	2.2	97	WSW			2		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.03	762.7	60.4	15.8	53						8c						Normal School.
Alençon			30.15?	765 4?	50.0	10.0	72	NE			3		8nk			0	0		Normal School.
Amiens			30.21	767.2	54.7	12.6	74	WSW					0			0	0		Normal School.
Beaumette, (near Angers)			30.16	766.1	53.9	11.6	75	NE	6.3	2.8			10		NE	0	0		Beaumette Observatory.
Beauvais			30.15	765.8	52.3	11.3	41	NW			1		1		NW	0	0		Normal School.
Besançon			30.06	763.4	56.5	13.6	53	E			4		5		NE	0	0		Normal School.
Bourges			30.13	765.3	55.8	13.2		NE			4		5		NE	0	0		Normal School.
Brest			30.21	767.3	51.6	10.9	56	NNE			3		5		N	0.010	0.25		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.24	768.1	46.4	8.0		N			2		10			0	0		Normal School.
Chaumont			30.06	763.1	58.3	14.6		NNW			2		3			0	0		Normal School.
Le Mans			30.17	766.4	51.1	10.6	68	N			2		8		N	0	0		Normal School.
Mirecourt			30.03	762.8	50.5	10.3		NW			2		2cs		SW	0	0		Normal School.
Orleans			30.21?	767.4?	47.8	8.8	73	W			6		10		NW	0	0		Normal School.
Paris			30.13	765.2	50.7	10.4		W			2		8k		NW	0	0		National Observatory.
Parthenay			30.19	766.7	50.9	10.5	86	N			2		5		NE	0	0		Normal School.
La Roche sur Yon			30.15	765.8	56.8	13.8	71	NNE			2		8		S	0	0		Normal School.
Rouen			30.15	765.8	55.2	12.9	36	W			3		0			0	0		Normal School.
Saint Lo			30.25	768.4	50.0	10.0	64	NE			2		0		N	0	0		Normal School.
Villefranche			30.10	764.6	62.4	16.9	92	NNW			1		0			0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.85	631.1			45.2	7.9	52	ESE	10.8	7.50			5		SSW	0	0		—. Falguère.
Montsouris (near Paris)			30.12	765.1	50.4	10.2	69	NW	1.6	0.73			9k		NW	0	0		Marié Davy.
Perpignan	29.94	760.5			59.9	15.5	51	SE	9.3	4.17			2			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.13	765.4	50.4	10.2	72	NW			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.15	765.8	55.9	13.3	66	NW			1		10		N	0	0		C. Marquet.
Versailles, (near Paris)			30.13	765.3	53.6	12.0	65	NW			2		8			0	0		Dr. A. Bérigny.
Z-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.97	761.2	50.0	10.0	52	SW			5					0	0		Prof. Hoh.
Berlin			29.94	760.4	47.3	8.5	73	S			1		10			0.094	2.4		Prof. Arndt.
Breslau			30.05	763.3	42.1	5.6	73	SSE			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.01	762.2	57.2	14.0	53	NW			2–5		9			0	0		A. Senz.
Cassel			29.89	759.3	47.7	8.7	76	SSW			2		10			0.024	0.6		Dr. H. Möhl.
Cologne			30.04	763.0	45.5	7.5	88	NW			1		8			0	0		Dr. Garthe.
Emden			29.51	749.6	47.1	8.4	88	W			3		2			0.142	3.6		Prof. Prestel.
Frankfort on the Main			30.12	765.0	53.6	12.0	78	NW			2		9			0	0		Physical Society.
Friedrichshafen			30.11	764.7	44.6	7.0	71	SW					5			0.177	4.5	Snow & rain	M. Wilhelm.
Hamburg			29.91	759.6	47.8	8.8	74	WNW			4		7			0.461	11.7		W. Reinert.
Kiel			29.91	759.6	47.8	8.8	66	WSW			4		5			0.319	8.1		Prof. G. Karsten.
Königsberg			29.94	760.4	32.2	0.1	77	S			4		9			0.220	5.6	Snow	Prof. E. Luther.
Köslin			30.48	774.3	36.5	2.5		S			2		10			0.193	4.9		Dr. T gert.
Leipsic			29.96	761.0	49.3	9.6	66	WSW			3		10			0	0		Prof. Bruhns.
Münster			29.94	760.5	49.6	9.8	81	SW			2		5			0.094	2.4	Rain	Prof. E. Heis.
Posen			29.97	761.2	38.7	3.7	92	S			2		10			0.331	8.4		Dr. Magener.
Strassburg, (in Alsace)			30.04	762.9	58.1	14.5	41	SW					4			0	0		Hartwig and Tülk.
Stuttgart			30.00	762.0	56.3	13.5	49	NW					8			0	0	Rain	Mr. Würth.
Thorn			29.97	761.3	33.3	0.7	90	SSE			3		10			0.322	8.2	Rain	Dr. Hesenbalg.
Treves, (Trier)			30.00	762.0	45.7	7.6	72	W			4		10			0	0		Prof. Flesch.
Wustrow			29.81	757.1	36.3	2.4	100	W			2		10			0.043	1.1		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.11	764.7	55.4	13.0	60	WNW	2.5	1.1			5			0	0		
Mondovi			30.12	765.0	50.5	10.3	60	NW			4		1			0	0		
Genoa			30.14	765.5	55.0	12.8	66	SE	3.8	1.7			2	S		0	0		
Pavia			30.11	764.8	54.3	12.4	55	E			4		0			0	0		
Verona			30.09	764.4	48.8	14.0	50	E			2		0			0	0		
Padua			30.13	765.2	52.2	11.2	49	ESE	12.5	5.6			0			0	0		
Parma																			
Bologna			30.11	764.8	54.5	12.5	27	ESE			6		2	SW		0	0		
Livorno			30.17	766.2	57.0	13.9	59	W	0.7	0.3			1			0	0		
Urbino			30.10	764.6	53.4	11.9		SE			4		0			0	0		
Ancona																			
Siena			30.08	764.0	59.9	15.5	48	SSW	0	0			1	SE		0	0		
Rome			30.15	765.9	58.5	14.7	61	S	6.9	3.1			1			0	0		
Naples, O.U.			30.15	765.9	63.7	17.6	31	NE			2		0			0	0		
Lecce			30.17	766.4	48.0	8.9	73	NW	16.1	7.2			1	S		0	0		
Cosenza			30.05	763.3	55.9	13.3	38	N			2		0			0	0		
Catania, (Sicily)																			
Riposto			30.16	766.0	60.9	16.1	60	SE			4		3	SE		0	0		
Palermo			30.10	764.5	56.1	13.4	60	ENE			4		0			0	0		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.6	43.9	6.6		WNW			4								
Groningen			29.85	758.2	46.8	8.2		WNW			5								
Helder			29.93	760.1	44.2	6.8		WSW			4								
Utrecht			29.94	760.5	53.4	11.9		W			4		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.61	752.1	42.8	5.8	85	SSW	21.3	7.5			10			0	0	Rain	
Christiania			29.56	750.8	36.9	2.7	80	WNW	2.7	1.2			9			0.323	8.2		
Tromsö			29.57	751.0	32.9	0.5	94	WSW			9		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.57	751.1			61.5	16.4	37	NNE	21.0	0.4			9						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.08	764.1	37.2	2.6	51	S	9	4			10						Astronomical Obs.
Wilna			30.11	764.9	34.0	1.1	58	Calm	0	0			10						Astronomical Obs.
Dorpat			30.06	763.5	30.7	— 0.7	56	SE	9	4			10						Physical Cabinet.
St. Petersburg			30.11	764.8	28.0	— 2.2	55	SE	4	2			9						Central Physical Obs.
Kieff			30.13	765.3	25.5	— 3.6	67	NNE	13	6			1						Physical Cabinet.
Nikolaiev			30.07	763.8	27.0	— 2.8	81	NNE	7.8	3.5			7						
Kertch			29.78	756.5	30.4	— 0.9	96	NE	20	9			10						Lagorio.
Moscow			30.10	764.5	28.5	— 1.7	56	NW	7.8	3.5			4						Meteorological Obs.
Lugan			29.86	758.4	27.5	— 2.5	72	NE	7.8	3.5			10						Meteorological Obs.
Archangel			30.36	771.2	28.4	— 2.0	68	Calm	0	0			0						Ogorodnikof.
Tiflis			29.39	746.5	23.0	5.0	55	NNW	25	11			10						Physical Obs.
Astrakhan			29.64	752.9	32.9	0.5	90	NE	20	9			10					Rain & snow	Sebastianof.
Kasan			29.91	759.6	26.4	— 3.1	85	E	3.4	1.5			10					Snow	Physical Cabinet.
Orenburg			29.98	761.4	29.1	— 1.6	92	Calm	0	0			10						Tschernischef.
Ekaterinburg			30.08	764.1	22.6	— 5.2	88	Calm	0	0			9					Snow	Meteorological Obs.
Kasaly			29.61	752.1	59.0	15.0	85	SW	20	9			0						Bobrof.
Tashkend			29.78	756.3	74.7	23.7	27	NE	7.8	3.5			9						Michelson.
Barnaul			30.26	768.5	25.0	— 3.9	60	Calm	0	0			4						Meteorological Obs.
Yeniseisk			30.37	771.4	30.0	— 1.1	66	E	4	2			10						Marks.
Irkutsk																			Usolzef.
Oorga			30.38	771.7	18.1	— 7.7	100	E	4	2			10					Snow	Mossin.
Peking, (China)			30.22	767.6	43.5	6.4	96	Calm	0	0			10						Physical Observatory!
Nertchinsk			30.24	768.1	22.3	— 5.4	59	NW	10.1	4.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.98	761.5	55.4	13.0	40	SW	0.7	0.3		2	9	N		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.64	752.9	28.4	— 2.0	100	ESE			4		10			0.114	2.9	Snow	
Hernosand			29.53	750.1	30.6	— 0.8	81	E			2		10			0	0		
Stockholm			29.59	751.5	36.7	2.6	72	S			4		10			0.153	3.9		
Wisby			29.74	754.9	29.8	— 1.2	84	WSW			2		10			0.106	2.7		
Sub-Series.																			
Upsala			29.59	751.5	35.6	2.0	94	S			1		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.63	727.3			52.3	11.4	39	N			2		0			0	0		The Observatory.
Zurich	28.39	721.0			54.1	12.3	54	W			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.9mm.; Thermometer, +2°.2 C.; Relative Humidity, —20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.55	750.6	53.2	11.8	69	SW			8		10					Rain	
Constantinople			29.99	761.8	35.1	1.7	67	N	22	10			10		N	Blank	Blank		
Fao, (Persian Gulf)			29.89	759.3	68.0	20.0		NW			4		10						
Salonica			30.04	762.9	47.5	8.6		NW			6		0						
Valona			30.02	762.4	50.0	10.0		NW			3		0						
Varna			29.92	760.0	37.4	3.0		N			6		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.85	758.2	35	1.7		SW	6	7.2		0	0			0	0		
Cape Roziere, Quebec			29.57	751.1	28	— 2.2	94	W	2	0.9		4c	0	NW		0	0		
Chatham, N. B.			29.64	752.8	36	2.2	75	SW	10	4.5		8c	2ks	W	W	0.04	1.0		
Charlottetown, P. E. Island			29.74	755.4	35	1.7	79	SW	11	4.9			10s			0.05	1.3		
Father Point, Quebec																			
Fort Garry, Manitoba			30.22	767.6	— 8	—22.2	92	Calm	0	0		0	0			0	0		
Halifax, N. S.			29.72	754.9	37	2.8	88	W	2	0.9			8n		SW	0.05	1.3		
Kingston, Ontario			29.86	758.4	29.1	— 1.6	88	W	5	2.2		0	0			0	0		
Montreal, Quebec			29.74	755.4	35	1.7	71	SW	22	9.8		0	0			0	0		
Ottawa, Ontario			29.70	754.4	29	— 1.7	61	SW	6	2.7		0	2s			0.10	2.5		
Parry Sound, Ontario			29.78	756.4	30	— 1.1	79	W	24	10.7		2c	2ks	W	W	0.10	2.5		
Port Dover, Ontario			29.91	759.7	35	1.7	70	SW	11	4.9		0	0			0.07	1.8		
Port Stanley, Ontario			29.95	760.7	31	— 0.6	88	W	21	9.4		0	0			0.09	2.3		
Quebec, Quebec			29.70	754.4	30	— 1.1	89	W			1	0	0			0.05	1.3		
Saugeen, Ontario			29.84	757.9	30	— 1.1	94	NW	16	7.2			10n		N	0.52	13.2		
Stayner			29.79	756.7	35	1.7	65	NW	5	2.2			8ks		W	0	0		
Sydney, C. B.			29.85	758.2	30	— 1.1	91	S	11	4.9			10n		S	0.01	0.3	Light snow.	
Toronto, Ontario			29.87	758.7	33	0.6	82	SW	9	4.0		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.92	760.0	41	5.0	66	S	10	4.5		0	Haze			0.04	1.0		
Alpena, Mich.			29.85	758.2	28	— 2.2	57	W	12	5.4		0	2ks			0.03	0.8		
Atlantic City, N. J.			30.05	763.3	45	7.2	76	NW	3	1.3		10cs	0			0.02	0.5		
Augusta, Ga.			30.14	765.5	61	16.1	94	S	3	1.3			10n			0.05	1.3	Light rain	
Baltimore, Md.			30.08	764.0	48	8.9	56	NW	2	0.9			8s		NW	0.11	2.8		
Barnegat, N. J.			30.04	763.0	44	6.7	83	Calm	0	0			10s			0	0		
Benton, Montana			29.72	754.9	34	1.1	61	SW	8	3.6		5c	0	W		0	0		
Bismarck, Dakota			30.03	762.7	10	—12.2	58	E	5	2.2		5c	0	SE		0	0		
Boston, Mass.			29.92	760.0	41	5.0	74	NW	8	3.6		0	0			0.07	1.8		
Breckenridge, Minn.			30.18	766.6	4	—15.6	87	Calm	0	0		5k	0	NW		0	0		
Buffalo, N. Y.			29.89	759.2	33	0.6	79	SW	14	6.3		0	0			0.14	3.5		
Burlington, Vt.			29.80	756.9	35	1.7	70	S	9	4.0		0	2s			0.02	0.5		
Cairo, Ill.			30.24	768.1	42	5.6	57	NE	5	2.2			10s			1.06	26.9		
Cape Hatteras, N. C.			30.12	765.0	61	16.1	82	SW	24	10.7		5c	Haze	W		0	0		
Cape Henry, Va.			30.03	762.7	59	15.0	82	SW	15	6.7			10s		SW	0	0		
Cape May, N. J.			30.06	763.5	46	7.8	76	N	4	1.8			10s		NW	0	0		
Charleston, S. C.			30.21	767.3	63	17.2	83	SW	8	3.6		8ck	Sm'e	W		0	0		
Cheyenne, W. T.			29.82	757.4	29	— 1.7	59	W	4	1.8		0	0			0	0		
Chicago, Ill.			30.08	764.0	40	4.4	56	SW	8	3.6		0	0			0	0		
Cincinnati, Ohio			30.21	767.3	38	3.3	71	NW	4	1.8		0	Sm'e			0.16	4.1		
Cleveland, Ohio			29.99	761.7	39	3.9	59	SW	14	6.3		0	0			0.40	10.2		
Colorado Springs, Col.			29.87	758.7	32	0.0	59	NW	8	3.6		5cs	0			0	0		
Corsicana, Texas			30.09	761.7	61	16.1	94	N	4	1.8			10s			0.04	1.0		
Davenport, Iowa			30.15	765.8	35	1.7	71	Calm	0	0		0	Sm'e			0	0		
Denver, Col.			29.90	759.4	30	— 1.1	46	S	5	2.2		0	0			0	0		
Detroit, Mich.			29.95	761.7	38	3.3	54	W	11	4.9		0	0			0.07	1.8		
Dodge City, Kansas			29.69	754.1	48	8.9	78	SE	8	3.6		0	0			0	0		
Dubuque, Iowa			30.12	765.0	35	1.7	70	N	8	3.6		0	Fog			0	0		
Duluth, Minn.			30.15	765.8	15	— 9.4	65	Calm	0	0		0	0			0	0		
Eastport, Me.			29.78	756.4	36	2.2	80	W	4	1.8		0	0			0.01	0.3		
Erie, Penn.			29.93	760.2	39	3.9	55	SW	24	10.7		0	Haze			0.23	5.8		
Escanaba, Mich.			29.98	761.5	24	— 4.4	61	NW	5	2.2		0	0			0	0		
Fort Gibson, I. T.			30.04	763.0	48	8.9	56	E	8	3.6		0	2ks			0.01	0.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.03	762.7	27	— 2.8	76	E	10	4.5		0	2s		E	0	0		
Galveston, Texas			30.07	763.8	68	20.0	94	SE	7	3.1		0	8ks			0.02	0.5	Fog	
Grand Haven, Mich.			30.02	762.5	35	1.7	70	W	8	3.6		0	0			0	0		
Indianapolis, Ind.			30.18	766.6	37	2.8	71	SW	3	1.3		0	Sm'e			0.29	7.4		
Indianola, Texas			30.34	770.6	69	20.6	95	SE	4	1.8			10s			0	0		
Jacksonville, Fla.			30.21	767.3	67	19.4	84	SE	8	3.6		0	0			0	0		
Keokuk, Iowa			30.10	764.5	39	3.9	63	SW	8	3.6		0	0			0	0		
Key West, Fla.			30.22	767.6	75.0	23.9	60	E	11	4.9		2k	0	E		0	0		
Kittyhawk, N. C.			30.08	764.0	59	15.0	73	SW	22	9.8			10s		SW	0	0		
Knoxville, Tenn.			30.10	764.5	50	10.0	86	N	9	4.0			10s			0.14	3.5		
La Crosse, Wis.			30.12	765.0	31	— 0.6	79	N	5	2.2		0	0			0	0		
Leavenworth, Kan.			30.13	765.3	35	1.7	69	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.22	767.6	42	5.6	50	E	4	1.8		0	2s			0.46	11.7		
Long Branch, N. J.			30.03	763.8	40	4.4	82	SW	3	1.3		2ck	Haze	SW		0.06	1.5		
Louisville, Ky.			30.22	767.6	36	2.2	70	Calm	0	0		0	Fog			1.00	25.4		
Lynchburg, Va.			30.03	762.7	58	14.4	70	W	4	1.8			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.97	761.2	18	— 7.8	68	W	20	8.9		2k	0	W		0	0		
Memphis, Tenn.			30.15	765.8	45	7.2	68	NE	6	2.7			10n			0.79	20.1	Light rain	
Milwaukee, Wisconsin			30.08	764.0	36	2.2	62	W	14	6.2		Haze	0			0	0		
Mobile, Ala.			30.14	765.5	67	19.4	79	S	5	2.2		5c	5s			0	0		
Montgomery, Ala.			30.12	765.0	66	18.9	89	SW	7	3.1			10s			0	0		
Morgantown, W. Virginia			30.13	765.3	40	4.4	51	SW	1	0.4		0	0			0.35	8.9		
Mt. Washington, N. H.			29.72	754.9	12	—11.1	80	NW	74	33.1		0	0			0.18	4.6		
Nashville, Tenn.			30.18	766.6	43	6.1	66	N	8	3.6		5k	5s	W		0.97	24.6		
New Haven, Conn.			29.99	761.7	44	6.7	67	NW	4	1.8		2cs	0	NW		0.01	0.3		
New London, Conn.			29.99	761.7	42	5.6	74	W	2	0.9		2c	0	W		0.02	0.5		
New Orleans, La.			30.12	765.0	65	18.3	89	S	3	1.3			Fog			0.04	1.0	Fog	
Newport, R. I.																			
New York, N. Y.			30.03	762.7	38	3.3	80	SW	4	1.8		0	Fog			0.12	3.0		
Norfolk, Va.			30.04	763.0	58.5	14.7	82	SW	14	6.2			10s		SW	0.01	0.3		
North Platte, Neb.			29.94	752.8	34	1.1	64	Calm	0	0		0	0			0	0		
Omaha, Neb.			30.06	763.5	35	1.7	69	S	5	2.2		0	Haze			0	0		
Oswego, N. Y.			29.88	758.9	39.8	4.2	47	SW	6	2.7		Haze	Haze			0.11	2.8		
Peck's Beach			30.06	763.5	45	7.2	76	N	4	1.8			10s		W	0.02	0.5		
Pembina, D. T.			30.22	767.6	— 6	—21.1	81	Calm	0	0		0	0			0	0		
Philadelphia, Penn.			30.06	763.5	43	6.1	58	NW	8	3.6		2ck	2s	W	W	0.09	2.3		
Pike's Peak, C. T.			29.79	756.7	8	—13.3	100	W	28	12.5		2k	2s	E		0	0		
Pittsburgh, Penn.			30.08	764.0	37	2.8	62	SW	11	4.9		0	0			0.37	9.4		
Port Huron, Mich.			29.91	759.7	36	2.2	70	SW	10	4.5		0	0			0.12	3.0		
Portland, Maine			29.87	758.7	40	4.4	56	W	10	4.5		0	Haze			0.07	1.8		
Portland, Or.			29.94	760.5	44	6.7	92	SW	12	5.4			10n			1.15	29.2	Heavy rain	
Punta Rassa, Fla.			30.25	768.3	67	19.4	87	E	4	1.8		8cs	1k			0	0		
Rochester, N. Y.			29.84	757.9	38	3.3	54	W	20	8.9		Haze	0			0.08	2.0		
Salt Lake City, Utah			29.99	759.4	38	3.3	63	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			30.01	762.2	38	3.3	80	W	10	4.5		5c	Haze	W		0.05	1.3		
San Diego, Cal.			30.18	766.6	51	10.6	86	Calm	0	0		0	2s			0	0		
San Francisco, Cal.			30.23	767.8	51	10.6	89	SW	8	3.6			10s			0.02	0.5		
Santa Fe, N. M.			29.70	754.4	35	1.7	54	SE	8	3.6			10s			0	0		
Savannah, Georgia			30.20	767.1	65	18.3	78	S	8	3.6		8cs	0	SW		0	0		
Shreveport, La.			30.01	762.2	68	20.0	90	S	4	1.8			10s			0.01	0.3		
Springfield, Mass.			29.96	761.0	76	24.4	80	Calm	0	0		0	Fog			0.06	1.8		
St. Louis, Mo.			30.22	767.6	41	5.0	56	Calm	0	0		8c	0	S		0	0		
St. Marks, Fla.			30.20	767.1	65	18.3	94	S	4	1.8		0	0			0	0		
St. Paul, Minn.			30.31	765.3	14	—10.0	82	NW	6	2.7		0	0			0	0		
St. Paul's Island, Alaska			30.35	770.9	27	— 2.8	76	WSW	17	7.6		c	8k			0.01	0.3		
Squan Beach, N. J.			30.02	762.5	42	5.6	65	NW	2	0.9		5k	0	NW		0.05	1.3		
Toledo, Ohio			29.94	760.5	42	5.6	49	SW	16	7.2		0	0			0.02	0.5		
Tybee Island, Ga.			30.21	767.3	64	17.8	88	S	8	3.6		1c	5ks			0	0		
Vicksburg, Miss.			30.10	764.3	66	18.9	90	Calm	0	0			10n			0.02	0.5	Light rain	
Virginia City, Mon.			29.47	748.5	29	— 1.7	67	SW	8	3.6		0	2s			0	0		
Washington, D. C.			30.09	764.3	48.5	9.2	48	N	4	1.8			10s		W	0	0		
Wilmington, N. C.			30.15	765.8	65	18.3	73	SW	16	7.2			10s			0	0		
Wood's Hole, Mass.			29.96	761.0	40	4.4	73	W	2	0.9		0	0			0	0		
Wytheville, Va.			29.87	758.7	48	8.9	77	N	6	2.7			10s			0	0		
Yankton, D. T.			30.02	762.5	31	1.1	74	S	4	1.8		2c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	75	23.9		E	3	1.3		5k	5n	N		0	0	Light rain	E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.04	763.0	75	23.9		NE				5c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.98	761.5	69	20.6	71	SE	3.0	1.6		2c	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768.8	75	23.9		Calm	0	0		8c	0	E		0.01	0.2		James Gall.
St. Thomas, St. T., W. I.	30.32	770.1			76	24.4		NE	8	3.6		2c	8k	ENE		0.23	8.4		W. S. Cameron.
Santiago de Cuba, W. I.			29.94	760.5	74	23.3	69	NE	8.4	3.8		0	5ck		NE	0	0		Robert Mason.
St. Georges, Bermudas			30.34	770.6	59	15.0	68	Calm	0	0		0	8ck			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.12	765.0	65	18.3		NE			2	5ck	5ks	NE	NE	0	0		E. P. Church.
Makawao, Maui, S. I.			30.08	764.0	63	17.2	83	Calm	0	0		1c	4ks	N		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mcpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.11	764.8	2.0	— 6.7	100	NW	15	6.7			10s			0	0	Snowy	J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	63	17.2	90	N	2	0.9		5c	2k	NE		0.36	9.1		C. Partridge.
St. John's, Newfoundland			30.03	762.7	33	0.6	80	W				2c	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.16	766.1	— 4.2	24.4	76	SE			1	4ks	0			0.044	1.12		Leon M. Acuña.
Ellyria, Ohio			30.03	762.7	38	3.3	54	SW	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.24	742.7			38	3.3		SE			1	0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 28, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:30 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.01	762.3															Charnot.
Algiers			29.86	758.5	57.6	14.2	93	NNW			2		10			0.823	20.9	Rain	Peter.
La Calle			29.81	757.2															Kuntz.
Tunis			29.80	756.9	62.1	16.7	76	NE			3		2			0.657	16.7	Rain	Jacques.
Sfax			29.80	756.8															Chauvey.
Saïda			30.00	762.0	51.3	10.7		W			4		6			0.079	2.0		Grosjean.
Tebessa			29.82	757.3															Colin.
Geriville			29.99	761.7	45.0	7.2		NW			3		7			0.236	6.0	Rain	Bernadach.
Laghouat			29.87	758.6	56.9	13.8	62	NW			2		7			0.236	6.0	Light rain	Poinsignon.
Biskra			29.83	757.6	54.7	12.6	82	E			2		10			0.118	3.0	Light rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.85	758.2	52.3	11.3	46	SW			2		10			0.067	1.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.89	759.3	38.3	3.5	84	W			1		10			0.020	0.5		I. R. Observatory.
Eperies			29.96	760.9	38.5	3.6	79	S			3		10			0.016	0.40		Julius Mikolik.
Gratz			29.88	758.0	44.8	7.1	70	SSW			2.5		10			0	0		Andreas Rospini.
Hermannstadt			30.09	761.9	38.8	3.8	50	ESE			2		0			0	0		Prof. Reissenberger.
Kremsmünster			29.92	760.0	37.8	3.2	90	W			3		10			0.276	7.0		Prof. C. Wagner.
Lemberg			29.91	759.6	37.6	3.1	57	W			2		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.03	762.8	24.8	— 4.0	69	W			1		9			0	0		Habesuda Daniel.
Pola			29.89	59.3	53.6	12.0	59	SSE			4		9cc			0	0		I. R. Hydrographic Office
Szegedin			29.95	760.6	38.7	3.8	54	S			4		10			0	0		Karl Stancel.
Trieste			29.88	759.0	55.4	13.0	49	SE			2		10			0	0		Prof. V. Farolfi.
Vienna			29.92	760.0	37.8	3.2	87	SE			1		10			0.059	1.5		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels			29.87	758.1			41.7	5.4	78	N			1		10		N	0.098	2.50		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.06	763.5	43.7	6.5		NW	25	11.2			6			0.110	2.79		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.43	772.9	51.4	10.8		NW	15	6.7									S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.30	769.6	46.0	7.8		W			5		3						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.49	774.4	51.3	10.7		NW			3–4		6						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	79.0	26.1		NE			3		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.25	768.3	44.0	6.7		N			4		3						H. Todd.
Cape Town, (Cape Colony)			29.93	760.2	68	20.0		NW			4		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.95	760 7			70.8	21.6	67	NW	15	6.7			2						The Staff, for E. J. Stone.
Cardington			30.26	768.6	45.0	7.2		N					6						John McLaren.
Carlisle			30.28	769.1	45.9	7.7		NW					9			0.04	1.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.21	767.3	40.8	4.9		NNW			2		10					Threatening	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.94	760.5	86.2	30.1		SE			2		8						Sgt. W. F. Hopkins
Dartmoor			30.39	771.9	41.1	5.1		N			6		8						R. E. Power.
Donaghadee			30.34	770.6	50	10.0		NNW			6		2						J. Mac Gowan, Jr.
Dover			30.20	770.1	44	6.7		NNE			6		4						J. Costello.
Dublin																			
Durham Observatory			30.21	770.4	43.1	6.2		NW					8						G. D. Goldney.
Eccles, (near Manchester)			30.27	770.6	47.4	8.6		NW	8.6	3.8			8						Thomas Mackereth.
Falmouth Observatory			30.41	772.4	47.0	8.3		N	26	11.6			10						The Staff.
Fort Napier, (Natal)			29.83	757 7	80.1	26.7		E			1		10						Pvt. G. Salmon.
Galway, Queen's College			30.48	774.2	52	11.1		NW			1		7						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.05	763.3	61.4	16.3		SW			3		10						Sergt. E. G. Baker.
Glasgow Observatory			30.25	768.3	48.2	9.0		NW			4		8						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.18	766.6	41	5.0		NNW			6		7						G. T. Watson.
Greenwich Royal Obs.			30.24	768.1	43.5	6.4		NNE			4		9						The Staff, for G. B. Airy.
Guernsey			30.31	769.9	47.5	8.6		NNE			4		5						Dr. S. E. Hoskins.
Halifax, Moorside Obs.																			F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.82	757.4	32.5	0.3		NW			2		8						Corp'l J. Y. Thompson.
Helston			30.36	770.9	48	8.9		N			6		10						Dr. W. B. Moyle.
Holyhead			30.37	771.4	47	8.3		NNW			5		3						John Tilston.
Hull Park																			
Kew Observatory			30.25	768.3	43.2	6.2		N	23	10.3			8						The Staff.
Kingstown			30.43	772.9	48	8.9		NW			4		7						George Mitchell.
Lampeter																			
Leicester Museum			30.27	768.8	44.5	6.9		NW			4		10						William J. Harrison
Llandudno			30.36	771 1	50.2	10.1		NNW					2						Dr. James Nicol.
Malta, (Mediterranean)			29.90	759.4	57.0	13.9		SE			1		10						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.24	768.1	46	7.8		NW			2		8						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	76.0	24.4		NE			3		5						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.27	768.8	44.3	6.8		NNW			4		10k		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.29	769.4	45	7.2		NNW			5		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.26	768.6	45	7.2		NW			3		10						J. Lucas, for R. Main.
Plymouth			30.37	771.4	49	9.4		NE			2		8						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.47	773.9	51	10.6		N			4		5						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.33	770.4	48.5	9.2		N			5		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.16	766.1	42	5.6		NW	34	15.2			10					Mist	Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			30.15	765.8	37.6	3.1		N			3		10						Sergt. W. H. Lyne.
Sheffield			30.25	768.3	46	7.8		N			2		7			2.252	57.66		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.28	769.1	48	8.9		NNW			3		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.16	766.1	42.5	5.8		NNW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			30.28	769.1	43.8	6.6		W			2		8						The Staff.
Stornoway, Lews C. (Hebr)			30.26	768 6	44	6.7		NW			5		7						John Smith.
Strathfield Turgiss			30.19	766.8	46.4	8.0		W			2		3sk						Rev Charles H. Griffith
Streatley Vicarage			30.29	769.4	48.4	9.1		N			8		8–5						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.02	762.5	38	3.3		NNW			6		10					Rain	William Lawrence.
Taunton College																			
Thurso			30.17	766.3	45	7.2		NNW			6		6						John Trotter.
Truro, Royal Institution			30.43	772.9	48	8.9		N			7		8						W Newcombe.
Valencia Observatory			30.54	775.7	51	10.1		N	14	6.3			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.73	755.1	39.6	4.2	82	W			2		9					Rain	
Fanöe			29.82	757.5	39.2	4.0	84	WNW			4		6						
Godthaab, (Greenland)			29.81	757.2	16.3	— 8.7		E			4		5						
Stykkisholm, (Iceland)			29.87	758.6	34.2	1.2	92	W			9		8						
Thorshavn, (Faröe)			30.06	763.4	41.5	5.3	72	W			4		5						
Vestervig			29.72	754.8	40.3	4.6	86	NW			4		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.78	756.5	59.0	15.0	84						5k						Normal School.
Alençon			30.26	768.7	43.3	6.3	80	N			4		8k			0	0		Normal School.
Amiens			30.31?	769.8?	50.4	10.2	81	N			6		0			0	0		Normal School.
Beaumette, (near Angers)			30.23	767.8	50.7	10.4	40	N	21.9	9.8			8		N	0	0		Beaumette Observatory.
Beauvais			30.19	766.9	42.1	5.6	70	N			6		10		NNW	0.026	0.65		Normal School.
Besançon			30.09	764.2	41.2	5.1	76	NE			3		5		NE	0	0		Normal School.
Bourges			30.15	765.9	46.8	8.2		NNW			4		5		NNW	0	0		Normal School.
Brest			30.30	769.6	47.3	8.5	51	NE			4		10		NE	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.28	769.1	39.4	4.1		N			3		5k		N	0	0		Normal School.
Chaumont			30.03	762.8	43.9	6.6		NW			2		10		NW	0.012	0.3		Normal School.
Le Mans			30.23	767.9	46.0	7.8	51	N			2		8		N	0	0		Normal School.
Mirecourt			29.97	761.2	44.6	7.0		N			1		8ck		NNW	0	0		Normal School.
Orleans			30.15	765.9	46.0	7.8	72	N			4		5		NW	0	0		Normal School.
Paris			30.14	765.6	38.3	3.5		N			4		10			0	0	Rain & sleet.	National Observatory.
Parthenay			30.19	766.9	49.1	9.5	74	N			4		5		NE	0	0		Normal School.
La Roche sur Yon			30.24	768.2	50.7	10.4	54	N			5		5		SSE	0	0		Normal School.
Rouen			30.21	767.4	45.7	7.6	59	N			6		1		N	0.012	0.3		Normal School.
Saint Lo			30.40	772.2	46.4	8.0	78	NE			2		0		N	0	0		Normal School.
Villefranche			30.00	762.1	53.8	12.1	95	NNW			4		5		N	0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.78	629.3			43.0	6.1	45	N	7.4	3.33			4		SW	0	0		—. Falguère.
Montsouris (near Paris)			30.14	765.6	41.7	5.4	66	NW	11.5	5.14			10kn		NNW	0.020	0.5		Marié Davy.
Perpignan	29.80	756.8			58.6	14.8	34	WNW	18.6	8.33			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.15	765.8	39.6	4.2	83	N			4		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.19	766.7	48.6	9.2	44	N			3		8		N	0	0		C. Marquet.
Versailles, (near Paris)			30.15	765.9	42.4	5.8	74	N			3		9			0.026	0.66		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.92	760.0	45.5	7.5	71	W			2		6			0	0	Rain	Prof. Hoh.
Berlin			29.92	759.9	46.2	7.9	59	W			2		5			0.008	0.2		Prof. Arndt.
Breslau			29.93	760.1	38.1	3.4	91	NW			1		10			0.370	9.4	Fog	Dr. P. Neugebauer.
Carlsruhe			29.97	761.3	47.5	8.6	60	SW			2-5		8			0.024	0.6		A. Senz.
Cassel			29.85	758.2	46.6	8.1	64	WSW			4		7			0.106	2.7	Rain & snow	Dr. H. Möhl.
Cologne			29.98	761.6	46.0	8.1	66	NW			8		7			0	0		Dr. Garthe.
Emden			30.04	763.0	41.9	5.5	71	NNW			3		5			0.028	0.7	Snow.	Prof. Prestel.
Frankfort on the Main			30.06	763.5	47.7	8.7	58	NW			2		3			0	0		Physical Society.
Friedrichshafen			29.99	761.8	41.2	5.0	84	W					10			0.130	3.3	Snow & rain.	M. Wilhelm.
Hamburg			29.89	759.2	40.1	4.5	84	W			4		9			0.035	0.9	Rain & hail.	W. Reinert.
Kiel			29.84	758.0	42.8	6.0	74	W			4		10			0.063	1.6		Prof. G. Karsten.
Königsberg			29.82	757.3	36.5	2.5	87	SW			2		10			0.079	2.0	Snow	Prof. E. Luther.
Köslin			30.48	774.2	36.7	2.6		W			2		10			0.177	4.5		Dr. T gert.
Leipsic			29.91	759.8	45.9	7.7	62	SW			2		6			0.035	0.9		Prof. Bruhns.
Münster			29.92	760.0	42.4	5.8	77	SW			2		5			0.134	3.4	Rain	Prof. E. Heis.
Posen			29.87	758.7	40.5	4.7	92	NW			2		10						Dr. Magauer.
Strassburg, (in Alsace)			30.00	762.0	45.5	7.5	54	NW					4			0.004	0.1		Hartwig and Tölk.
Stuttgart			29.95	760.7	45.3	7.4	78	NW					8			0.102	2.6	Rain	Mr. Würth.
Thorn			29.84	757.8	37.8	3.2	96	W			1		10			0	0		Dr. Hasenbalg.
Treves, (Trier)			29.96	760.0	45.1	7.3	27	NW			7		8			0.008	0.2		Prof. Flesch.
Wustrow			29.86	758.5	36.7	2.6	91	W			3		5			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.82	757.3	46.2	7.9	83	NW	4.8	2.2			10	W		0.067	17.0		
Mondovi			29.81	757.2	47.3	8.5	83	NW			4		10	NW		Blank	Blank		
Genoa			29.81	757.2	53.2	11.8	74	SE	8.1	3.6			10	SE		0	0		
Pavia			29.83	757.6	47.5	8.6	78	E			2		9	E		Blank	Blank		
Verona			29.81	757.1	59.0	15.0	39	E			2		10	E		0.012	0.3		
Padua			29.84	757.8	53.2	11.8	61	NNE	13.0	5.8			10	SSW		0	0		
Parma																			
Bologna			29.83	757.7	53.1	11.7	32	WNW			4		6	E		0	0		
Livorno			29.85	758.3	57.9	14.4	62	S	10.5	4.7			8			0	0		
Urbino			29.88	759.0	54.1	12.3	43	SW			4		4			0	0		
Ancona																			
Siena			29.85	758.2	55.6	13.1	54	S	2.5	1.1			10	SW		0	0		
Rome			29.93	760.3	59.7	15.4	58	S	12.5	5.6			8	SSW		0	0		
Naples, O.U			29.99	761.7	57.6	14.2	69	SW			2		10			0	0		
Lecce			30.03	762.8	52.3	11.3	52	FSE	18.6	8.3			6			0	0		
Cosenza			29.97	761.3	57.9	14.4	32	SE			2		4	SE		0	0		
Catania, (Sicily)																			
Riposto			30.02	762.4	57.2	14.0	67	N			2		10	N		0.047	1.2		
Palermo			29.98	761.5	54.0	12.2	66	SSW			4		9			0.012	0.3		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.15	765.7	41.0	5.0		NNE			4								
Groningen			29.93	760.1	39.6	4.2		NNW			5								
Helder			30.04	763.1	38.5	3.6		NW			4								
Utrecht			30.00	762.1	33.4	6.8		NNW			4		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	757.9	37.4	3.0	66	N	14.1	6.3			5			0.362	9.2		
Christiania			29.70	754.3	40.3	4.6	68	ENE	0.9	0.4			8			0	0		
Tromsö			29.62	752.4	32.5	0.3	94	SE			6		3			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.72	754.8			59.2	15.1	48	NE	16.1	7.2			10						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.85	758.3	38.5	3.6	87	SSW	7	3			10						Astronomical Obs.
Wilna			29.84	758.0	32.5	0.3	100	S	4	2			10					Rain	Astronomical Obs.
Dorpat			29.78	756.3	35.4	1.9	82	S	7	3			10					Snow	Physical Cabinet.
St. Petersburg			29.80	757.0	26.8	— 2.9	81	ESE	4	2			10						Central Physical Obs.
Kieff			30.11	764.9	28.4	— 2.0	72	SW	7	3			3						Physical Cabinet.
Nikolaiev			30.14	765.6	30.9	— 0.6	73	NNW	4	2			10						
Kertch			30.03	762.8	33.6	0.9	82	N	10.1	4.5			10						Lagorio.
Moscow			30.08	764.0	31.6	— 0.2	50	W	7.8	3.5			0						Meteorological Obs.
Lugan			29.86	758.4	30.7	— 0.7	73	NW	20	9			9						Meteorological Obs.
Archangel			30.24	768.2	29.1	— 1.6	72	ESE	4	2			0						Ogorodnikof.
Tiflis			29.78	756.3	40.3	4.6	45	NNW	16.5	7.5			9						Physical Obs.
Astrakhan			29.16	740.6	30.0	— 1.1	92	WNW	25	11			10					Snow	Sebastianof.
Kasan			29.89	759.2	29.5	— 1.4	86	NNE	7.8	3.5			10						Physical Cabinet.
Orenburg			29.41	747.1	29.8	— 1.2	96	E	13	6			10						Tschernischef.
Ekaterinburg			30.16	766.0	21.2	— 6.0	85	NE	7.8	3.5			10						Meteorological Obs.
Kasaly			29.88	759.0	59.2	15.1	85	SW	7.8	3.5			0						Bobrof.
Tashkend			29.89	759.2	77.4	25.2	38	Calm	0	0			10						Michelson.
Barnaul			30.05	763.3	29.3	— 1.5	78	Calm	0	0			2						Meteorological Obs.
Yeniseisk			29.93	760.2	37.4	3.0	62	SE	4	2			0						Marks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			30.12	765.1	38.3	3.6	92	SE	7.8	3.5			10					Rain	Physical Observatory.
Nertchinsk			30.20	767.1	24.3	— 4.3	48	NNE	7.8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.02	762.5	62.8	17.1	31	NE	8.9	4.0		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.70	754.4	30.9	— 0.6	88	NE			2		10*			0.366	9.3		
Hernosand			29.84	757.9	33.4	0.8	68	N			2		10			0	0		
Stockholm			29.65	753.0	34.0	1.1	85	NNE			2		10			0	0	Snow	
Wisby			29.68	753.3	37.8	3.2	87	WNW			2		5			0	0		
Sub-Series.																			
Upsala			29.69	754.2	33.6	0.9	74	NNW			3		10			0*	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.54	724.9			45.1	7.3	42	NNW			2		7			0	0		The Observatory.
Zurich	28.30	718.7			41.7	5.4	88	NE			1		10			0.382	9.7		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.6mm.; Thermometer, —2°.1 C.; Relative Humidity, —17 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.14	765.6	36.7	2.6	72	N	5.0	2.5			10		N	Blank	Blank		
Fao, (Persian Gulf)			29.80	757.0	68.0	20.0		SE			3		0						
Salonica			30.06	763.5	53.6	12.0		NW			2		2						
Valona			29.93	760.1	54.0	12.2		SW			2		2						
Varna			30.14	765.5	42.8	6.0		NW			3		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.38	771.6	31	— 0.6		Calm	0	0		0	0			0	0		
Cape Roziere, Quebec			29.79	756.7	29	— 1.7	100	N	8	3.6			10n			0.15	3.8	Light snow.	
Chatham, N. B.			29.81	757.2	35	1.7	64	NW	15	6.7		5c	5ks	NW	NW	0	0		
Charlottetown, P. E. Island			29.78	756.4	31	— 0.6	86	SW	8	3.6		8c	0	SW		0	0		
Father Point, Quebec																0	0		
Fort Garry, Manitoba			29.89	759.2	22	— 5.6	92	S	12	5.4		5k	2ks	W	W	0	0		
Halifax, N. S.			29.74	755.4	33	0.6	79	NW	3	1.3			8ks			0	0		
Kingston, Ontario			30.40	772.1	21	— 6.1	85	W	2	0.9		0	0			0	0		
Montreal, Quebec			30.26	768.6	23	— 5.0	73	W	18	8.0		5c	5ks	N		0.01	0.3		
Ottawa, Ontario			30.37	771.4	22	— 5.5	66	W	8	3.6		0	0			0	0		
Parry Sound, Ontario			30.44	773.2	2	—16.7	72	Calm	0	0		0	0			0	0		
Port Dover, Ontario			30.41	772.4	20	— 6.7	71	E	5	2.2		0	0			0	0		
Port Stanley, Ontario			30.38	771.6	22	— 5.6	72	E	8	3.6		0	0			0	0		
Quebec, Quebec			30.12	765.0	22	— 5.6	79	NW			4	0	0			0.01	0.3		
Saugeen, Ontario			30.41	772.4	10	—12.2	90	Calm	0	0		0	0			0	0		
Stayner																0	0		
Sydney, C. B.			29.82	757.4	30	— 1.1	78	Calm	0	0		0	Sm'e			0	0		
Toronto, Ontario			30.44	773.2	18	— 7.8	68	NW	7	3.2		2c	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.29	769.4	29	— 1.7	78	NW	18	8.0		0	0			0	0		
Alpena, Mich.			30.38	771.6	14	—10.0	80	Calm	0	0		8cs	Sm'e			0	0		
Atlantic City, N. J.			30.31	769.9	40	4.4	56	NW	6	2.7		0	0			0	0		
Augusta, Ga.			30.19	766.8	56	13.3	93	N	9	4.0			10s			0.41	10.4	Threatening	
Baltimore, Md.			30.30	769.6	44	6.7	43	Calm	0	0		0	Sm'e			0	0		
Barnegat, N. J.			30.29	769.4	39	3.3	63	W	4	1.8		0	0			0	0		
Benton, Montana			29.68	753.9	42	5.6	42	SW	12	5.4		2c	2s	N		0	0		
Bismarck, Dakota			29.82	757.4	30	— 1.1	48	S	4	1.8		5c	0	S		0	0		
Boston, Mass.			30.19	766.8	34	1.1	43	NW	12	5.4		0	0			0	0		
Breckenridge, Minn.			30.02	762.5	12	—11.1	85	SE	4	1.8		0	0			0	0		
Buffalo, N. Y.			30.41	772.4	20.5	— 6.4	78	N	4	1.8		0	0			0	0		
Burlington, Vt.			30.20	767.1	26	— 3.3	75	N	9	4.0		2k	5s			0	0		
Cairo, Ill.			30.06	763.5	46	7.8	76	NE	12	5.4			10n			0.20	5.1	Light rain	
Cape Hatteras, N. C.			30.19	766.8	50	10.0	78	NE	17	7.6			10s			0.06	1.5		
Cape Henry, Va.			30.28	769.1	49	9.4	71	E	12	5.4		2k	0	W		0.05	1.3		
Cape May, N. J.			30.30	769.6	42	5.6	58	N	4	1.8		0	0			0	0		
Charleston, S. C.			30.17	766.3	61	16.1	100	Calm	0	0		8cs	Sm'e	W		0.17	4.3		
Cheyenne, W. T.			29.94	760.5	29	— 1.7	59	SW	4	1.8		2c	0			0	0		
Chicago, Ill.			30.20	767.1	39	3.9	64	E	6	2.7		2cs	5s			0	0		
Cincinnati, Ohio			30.24	768.1	42	5.6	49	SE	6	2.7		8c	0	W		0	0		
Cleveland, Ohio			30.35	770.9	28.7	— 1.8	77	NE	3	1.3		1c	0	W		0	0		
Colorado Springs, Col.			29.97	761.2	26	— 3.3	75	NW	4	1.8		0	0			0	0		
Corsicana, Texas			29.89	759.5	67	19.4	90	SE	8	3.6			10n			0.01	0.3	Light rain	
Davenport, Iowa			30.13	760.3	40	4.4	56	E	8	3.6		8k	0	NW		0	0		
Denver, Col.			29.99	761.7	29	— 1.7	56	SW	3	1.3		0	0			0	0		
Detroit, Mich.			30.38	771.6	27	— 2.8	77	E	7	3.1		8c	0			0	0		
Dodge City, Kansas			29.64	752.8	45	7.2	46	N	20	8.9		0	0			0	0		
Dubuque, Iowa			30.15	765.8	35	1.7	70	S	4	1.8			10s			0	0		
Duluth, Minn.			30.09	764.3	24	— 4.4	73	NE	12	5.4		Haze	8ks			0	0		
Eastport, Me.			29.94	76 .5	33	0.1	89	N	15	6.7			10n			0	0	Light snow	
Erie, Penn.			30.36	771.2	26	— 3.3	88	NE	4	1.8		5c	Haze			0	0		
Escanaba, Mich.			30.32	770.1	18	— 7.3	84	N	2	0.9			10s			0	0		
Fort Gibson, I. T.			29.85	758.2	53	11.7	79	SE	4	1.8		2k	6ks	S		0.45	11.4	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.98	761.5	25	3.9	75	Calm	0	0		0	1s			0	0		
Galveston, Texas			29.97	761.2	70	21.1	90	SE	4	1.8			10ks			0	0	Threatening	
Grand Haven, Mich.			30.30	769.6	38	3.3	77	SE	13	5.8			10s			0	0		
Indianapolis, Ind.			30.18	766.6	41	5.0	48	E	8	3.6			10s			0	0		
Indianola, Texas			29.95	760.7	70	21.1	95	S	4	1.8			10s			0	0		
Jacksonville, Fla.			30.16	766.1	65	18.3	83	Calm	0	0		8k	0	SW		0	0		
Keokuk, Iowa			30.04	763.0	41	5.0	73	E	6	2.7		5ck	0	W		0	0		
Key West, Fla.			30.12	765.0	75.9	24.4	65	SE	10	4.5		Haze	Haze			0	0		
Kittyhawk, N. C.			30.26	768.6	45	7.2	85	NE	10	4.5			10s			0.78	19.8		
Knoxville, Tenn.			30.15	765.8	45	7.2	45	NE	8	3.6			10s			0	0		
La Crosse, Wis.			30.12	765.0	39	3.3	73	SE	6	2.7			10s			0	0		
Leavenworth, Kan.			29.94	760.5	46	7.8	48	S	4	1.8		2c	0	NW		0	0		
Lexington, Ky.			30.18	766.6	44	6.7	37	E	8	3.6		8c	0			0	0		
Long Branch, N. J.			30.30	769.6	44	6.7	67	NW	12	5.4		0	0			0	0		
Louisville, Ky.			30.16	766.1	46	7.8	54	NE	4	1.8			10s			0	0		
Lynchburg, Va.			30.30	769.6	43	6.1	67	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.30	769.6	20	— 6.7	70	SE	8	3.6			10s			0	0		
Memphis, Tenn.			30.02	762.5	55	12.8	100	SE	5	2.2			10n			1.62	41.1	Light rain	
Milwaukee, Wisconsin			30.20	767.1	31	— 0.6	79	E	13	5.9			10ks			0	0		
Mobile, Ala.			30.08	764.0	66	18.9	94	S	4	1.8			10s			0	0		
Montgomery, Ala.			30.10	764.5	64	17.8	97	S	3	1.3			Fog			0.62	15.7	Fog	
Morgantown, W. Virginia			30.34	770.6	34	1.1	69	Calm	0	0		0	Haze			0	0		
Mt. Washington, N. H.			29.79	756.7	4	—15.6	100	NW	80	35.8			Fog			0	0		
Nashville, Tenn.			30.09	764.3	47	8.3	60	NE	3	1.3			10s			0	0		
New Haven, Conn.			30.31	769.9	33	0.6	50	N	10	4.5		0	0			0	0		
New London, Conn.			30.28	769.1	36	2.2	46	NW	13	5.9		0	0			0	0		
New Orleans, La.			30.06	763.5	67.5	19.7	92	S	4	1.8			Fog			0	0	Fog	
Newport, R. I.																			
New York, N. Y.			30.32	770.1	35	1.7	61	NW	10	4.5		0	0			0	0		
Norfolk, Va.			30.28	769.1	48.5	9.2	60	NE	8	3.6		2k	0			0	0		
North Platte, Neb.			29.67	753.6	35	1.7	62	SW	4	1.8		0	5s		W	0	0		
Omaha, Neb.			29.92	760.0	44	6.7	52	SE	10	4.5		2c	0	W		0	0		
Oswego, N. Y.			30.40	772.1	23.8	4.7	86	NNW	5	2.2		Haze	Haze			0	0		
Peck's Beach			30.32	770.1	42	5.6	65	NW	12	5.4		0	0			0	0		
Pembina, D. T.			29.87	758.7	20	— 6.7	83	SE	16	7.2			10s			0	0		
Philadelphia, Penn.			30.32	770.1	40	4.4	40	NE	10	4.5		0	0			0	0		
Pike's Peak, C. T.			29.87	758.7	7	—13.9	100	W	32	14.3		0	5s			0	0		
Pittsburgh, Penn.			30.32	770.1	31	— 0.6	79	Calm	0	0		0	Haze			0	0		
Port Huron, Mich.			30.39	771.9	33	0.6	73	E	5	2.2		5c	0			0	0		
Portland, Maine			30.14	765.5	34	1.1	52	NW	8	3.6		0	0			0	0		
Portland, Or.			29.92	760.0	49	9.4	85	S	24	10.7			10n			1.73	43.9	Light rain	
Punta Rassa, Fla.			30.16	766.1	69.1	20.8	79	SE	4	1.8		Haze	Sm'e			0	0		
Rochester, N. Y.			30.39	771.9	24	— 4.4	74	NW	8	3.6		0	0			0	0		
Salt Lake City, Utah			29.90	759.4	40	4.4	63	S	1	0.4			10s			0	0		
Sandy Hook, N. J.			30.30	769.6	37.5	3.1	53	N	10	4.5		2c	0	SW		0	0		
San Diego, Cal.			30.10	764.5	49	9.4	92	E	8	3.6		0	5s			0	0		
San Francisco, Cal.			30.05	763.3	53	11.7	86	S	8	3.6			10s			0.05	1.3		
Santa Fe, N. M.			29.73	755.1	36	2.2	38	NW	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			30.15	765.8	65	18.3	90	Calm	0	0			10s			0	0		
Shreveport, La.			30.00	762.0	61	16.1	94	W	5	2.2			10s			0	0		
Springfield, Mass.			30.27	768.8	34	1.1	52	W	8	3.6		0	0			0	0		
St. Louis, Mo.			30.06	763.5	48	8.9	56	SE	7	3.1			10s			0.01	0.3		
St. Marks, Fla.			30.14	765.5	67	19.4	92	S	6	2.7			10s			0	0		
St. Paul, Minn.			29.94	760.5	34	1.1	79	SE	8	3.6		0	5s			0	0		
St. Paul's Island, Alaska			29.78	756.4	32	0.0	89	WSW	5	2.2		0	10k			0.17	4.3		
Squan Beach, N. J.			30.30	769.6	40	4.4	90	NW	4	1.8		0	0			0	0		
Toledo, Ohio			30.26	768.6	34	1.1	61	E	8	3.6		5c	2s	SW		0	0		
Tybee Island, Ga.			30.16	766.1	62	16.7	100	Calm	0	0			10ks			0	0		
Vicksburg, Miss.			30.08	764.0	65	18.3	89	S	4	1.8			10s			1.21	30.7		
Virginia City, Mon.			29.49	749.0	32	0.0	79	SW	2	0.9			10s			0	0		
Washington, D. C.			30.31	769.9	41.5	5.3	45	NE	4	1.8		0	Sm'e			0	0		
Wilmington, N. C.			30.21	767.3	52	11.1	73	NE	11	4.9			10s			0.26	6.6		
Wood's Hole, Mass.			30.21	767.3	37	2.8	46	NW	16	7.2		0	0			0	0		
Wytheville, Va.			30.12	765.0	36	2.2	80	Calm	0	0		0	0			0	0		
Yankton, D. T.			29.99	761.7	32	0.0	74	NW	3	1.3		2c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		NE	5	2.2		5k	5s	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	75	23.9		E				5cs	2n			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.89	759.2	72	22.2	79	SE	2.4	1.1		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	73	22.8		Calm	0	0		0	0			0.01	0.2		James Gall.
St. Thomas, St. T., W. I.	30.29	769.4			75	23.9		NE	8	3.6		10k	8k	NW	N	0.01	0.2		W. S. Cameron.
Santiago de Cuba, W. I.			29.90	759.5	72	22.2	76	Calm	0	0		3c	2s	W		0	0		Robert Mason.
St. Georges, Bermudas			30.11	764.8	63.5	17.5	70	SW	1.9	0.9		0	5k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	65	18.3		NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.08	764.0	62	16.7	80	Calm	0	0		0	5n		E	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.19	766.8	1.5	—16.9	100	E	6	2.7			10n			0	0	Clearing	J. Fortescue.
Clifton, Jamaica, W. I.			30.09	764.3	65	18.3		S	2	0.9		0	1k			0.10	2.5		C. Partridge.
St. John's, Newfoundland			29.93	760.2	34	1.1	50	W					Haze			0.47	11.9		John Delaney.
St. John's, Porto Rico, W. I.			30.11	764.8	— 4.0	24.8	70	SE			2	5ck	1k			0.020	0.50		Leon M. Acuña.
Ellyria, Ohio			30.25	768.3	28	— 2.2	77	NE	8	3.6		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.14	740.1			43	6.1		SE			1	1s	0	NW		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 29, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.1															Charnot.
Algiers			30.13	765.2	61.2	16.2	77	NW			1		9			0.236	6.0	Rain	Peter.
La Calle			29.98	761.5															Kuntz.
Tunis			29.95	760.8	57.6	14.2	63	NW			5		10			0.051	1.3		Jacques.
Sfax			30.01	762.2															Chauvey.
Safda			30.30	769.7	58.1	14.5		WSW			2		0			0	0		Grosjean.
Tebessa			30.06	763.5															Colin.
Geriville			30.29	769.4	49.1	9.5		NW			3		0			0	0		Bernadach.
Laghouat			30.17	766.5	55.4	13.0	61	N			2		5			0	0		Poinsignon.
Biskra			30.10	764.5	68.4	20.2	34	NW			4		4			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.06	763.4	40.3	4.6	81	Calm			0		10			0.181	4.6	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.11	764.7	42.4	5.8	85	NE			1		5			0.020	0.5		I. R. Observatory.
Eperies			30.05	763.2	41.5	5.3	72	Calm			0		10			0.010	0.25		Julius Mikolik.
Gratz			30.09	764.3	42.1	5.6	82	SSW			0		10			0.248	6.3		Andreas Rospini.
Hermannstadt			29.96	761.0	45.0	7.2	38	ESE			1		2			0	0		Prof. Reissenberger.
Kremsmünster			30.20	767.0	37.6	3.1	78	WNW			3		10			0.110	2.8	Snow & rain.	Prof. C. Wagner.
Lemberg			30.07	763.8	36.5	2.5	87	NW			2		10			0.047	1.2	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.04	762.9	46.4	8.0	59	N			1		5			0.018	0.46		Habzsuda Daniel.
Pola			29.88	759.0	47.7	8.7	56	E			6		10s			0.083	2.10		I. R. Hydrographic Of'ce
Szegedin			29.99	761.7	39.2	4.0	84	E			3		10			0	0		Karl Stancel.
Trieste			29.94	760.5	48.2	9.0	49	NE			3		10			0	0		Prof. V. Farolfi.
Vienna			30.14	765.3	39.6	4.2	78	N			2		10			0.173	4.4		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	30.18	766.5			45.9	7.7	61	N			1		7		N	0.002	0.05		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observers.
Aberdeen			30.30	769.9	50.0	10.0		WNW	24	10.7			7			0	0		William Boswell.
Annanhill																			
Ardrossan			30.42	772.9	47	8.3		WNW			3		6						William McNeil.
Armagh Observatory			30.53	775.4	50.0	10.0		WNW	13	5.8			8					Rainy	S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col																			
Bidston, Liverpool Obs			30.48	774.2	45.8	7.7		W			5		6						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.59	777.0	49.4	9.7		W			1		10					Drizzling	J. Dreyer, for L'd Rosse.
Bradford			30.38	771.6	47.6	8.6		W			3		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	79.0	26.1		NE			4		7						T. H Hunt.
Bywell																			
Cambridge Observatory			30.43	772.9	50.0	10.0		NW			2		4						H. Todd.
Cape Town, (Cape Colony)			30.00	762.0	72.4	23.0		SE			4		3						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			70.6	21.4	50	SSE	29	13.0			4						The Staff, for E. J. Stone.
Cardington			30.45	773.4	50.0	10.0		N					8						John McLaren.
Carlisle			30.42	772.7	53.0	11.7		NW					7			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.44	773.2	50.0	10.0		NW			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.94	760.5	85.9	29.9		SE			1		5						Sgt. W. F. Hopkins
Dartmoor			30.52	775.2	41.5	5.3		N			2		10						R. E. Power.
Donaghadee			30.48	774.2	48	8.9		WNW			4		5						J. Mac Gowan, Jr.
Dover			30.43	772.9	49	9.4		NNW			2		8						J. Costello.
Dublin																			
Durham Observatory			30.36	771.1	50.9	10.5		NW					8						G. D. Goldney.
Eccles, (near Manchester)			30.46	773.7	47.9	8.8		WSW	6.8	3.0			10						Thomas Mackereth.
Falmouth Observatory			30.60	777.2	48.1	8.9		NNW	16	7.2			10						The Staff.
Fort Napier, (Natal)			29.91	759.7	68.2	20.1		SE			4		10						Pvt. G. Salmon.
Galway, Queen's College			30.56	776.2	52	11.1		W			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.10	764.5	66.5	13.6		WNW			3		2					Fog	Sergt. E. G. Baker.
Glasgow Observatory			30.38	771.6	49.0	9.4		NW			5		8						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.40	772.1	48	8.9		NW			3		6						G. T. Watson.
Greenwich Royal Obs			30.45	773.4	51.2	10.7		NNE			2		10						The Staff, for G. B. Airy.
Guernsey			30.54	775.7	49.5	9.7		NNW			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs			30.38	771.6	47.6	8.7		WNW					8						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.20	769.4	25.0	— 3.4		N			2		0						Corp'l J. Y. Thompson.
Helston			30.56	776.2	51	10.6		N			4		10						Dr. W. B. Moyle.
Holyhead			30.52	775.2	48	8.9		WNW			3		5						John Tilston.
Hull Park																			
Kew Observatory			30.47	773.9	49.8	9.9		NW	15	6.7			10						The Staff.
Kingstown			30.56	776.2	48	8.9		W			3		7						George Mitchell.
Lampeter																			
Leicester Museum			30.45	773.4	47.8	8.8		W			2		10						William J. Harrison
Llandudno			30.51	774.9	50.4	10.2		WNW					9						Dr. James Nicol.
Malta, (Mediterranean)			29.8[illegible]	758.2	59.5	15.3		NW			2		2						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.29	769.4	50	10.0		W			1		2						William D. Penny.
Nassau, (Bahamas)			30.11	764.8	76.5	29.7		E			4		6						Surg.-Maj. J. Jameson.
North Shields			30.37	771.4	50	10.0		NW			3		6						John Wm. Irvine.
Nottingham			30.46	773.4	47.4	8.6		NW			3		10k		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.47	773.9	46.4	8.0		NW			4		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.47	773.9	48	8.9		NW			3		10						J. Lucas, for R. Main.
Plymouth			30.55	770.9	50.5	10.3		N			2		10					Mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.59	777.0	49	9.4		NNW			2		10						W. Kennedy.
Saint Ann's Head			30.58	776.7	46	7.8		NW			2		10						John C. Walker.
Saint Helier, (Jersey)			30.52	775.2	53.0	11.7		N			3		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.22	767.6	46.2	7.9		W	24	10.7			5						Rev. C. Clouston
Scarborough			30.38	771.6	48.0	8.9		N			2		9						F. Shaw.
Scutari, (Turkey)			30.03	762.7	53.4	11.9		S			1		1						Sergt. W. H. Lyne.
Sheffield			30.41	772.4	49.4	9.7		N			2		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.42	772.7	52.1	11.2		NW			3		5			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.40	772.1	50.8	10.4		WNW			1		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.45	773.4	45.8	7.7		W			3		9						The Staff.
Stornoway, Lewis C. (Hebr)			30.28	769.1	48	8.9		W			4		5						John Smith.
Strathfield Turgiss			30.48	774.2	52	11.1		N			1		8ks						Rev Charles H. Griffith
Streatley Vicarage			30.50	774.7	49	9.4		NW			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.09	764.3	48	8.9		NW			5		10						William Lawrence.
Taunton College																			
Thurso			30.22	767.6	50	10.0		WNW			5		4						John Trotter.
Truro, Royal Institution			30.51	774.9	50	10.0		N			6		9						W Newcombe.
Valencia Observatory			30.62	777.7	50.2	10.1		NNW	2	0.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observers.
Copenhagen			30.07	763.8	37.4	3.0	85	NW			2		10						
Fanöe			30.14	765.6	38.5	3.6	93	W			4		10					Rain	
Godthaab, (Greenland)			29.75	755.6	18.9	— 7.3		N			2		8						
Stykkisholm, (Iceland)			29.81	757.2	30.0	— 1.2	88	E			2		10					Snow	
Thorshavn, (Faröe)			29.96	761.0	45.9	7.7	91	W			2-3		10					Rain	
Vestervig			30.04	763.0	41.4	5.2	94	NW			6		8						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.60	751.8	46.4	8.0	86						5k						Normal School.
Alençon			30.55	775.9	50.0	10.0	48	N			4		8			0	0		Normal School.
Amiens			30.48	774.2	48.2	9.0	66	N			2		5		N	0	0		Normal School.
Beaumette, (near Angers)			30.45	773.4	51.6	10.9	44	NE	18.3	8.2			10		NE	0	0		Beaumette Observatory.
Beauvais			30.47	773.8	47.3	8.5	47	NNW			3		10		NE	0	0		Normal School.
Besançon			30.31	769.8	42.8	6.0	67	NE			4		2		NE	0.157	4.0		Normal School.
Bourges			30.40	772.1	44.6	7.0		N			3		5		N	0	0		Normal School.
Brest			30.52	775.2	48.7	9.3	55	NNE			2		10		NE	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.35	770.9	45.1	7.3		N			6		8kn		N	0	0		Normal School.
Chaumont			30.31	769.9	42.4	5.8		NW			2		10		NNW	0.020	0.5		Normal School.
Le Mans			30.47	773.8	49.5	9.7	60	N			6		8		N	0	0		Normal School.
Mirecourt			30.29	769.3	42.3	5.7		NNE			4		8kn		NNE	0	0		Normal School.
Orleans			30.44?	773.1?	42.1	5.6	73	N			3		5		NW	0	0		Normal School.
Paris			30.44	773.2	47.1	8.4		N			2		8k		N	0.000	0.01		National Observatory.
Parthenay			30.45	773.4	48.2	9.0	58	N			2		5		NE	0	0		Normal School.
La Roche sur Yon			30.46	773.7	51.8	11.0	48	NNE			5		5		SSW	0	0		Normal School.
Rouen			30.48	774.2	49.8	9.9	64	N			1		10		N	0	0		Normal School.
Saint Lo			30.51	774.9	44.1	6.7	80	E			2		0		NE	0	0		Normal School.
Villefranche																			Normal School.
FRENCH SUB-SERIES.																			
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.81	630.2			30.6	— 0.8	52	N	26.2	11.67			2		N	0.083	2.1		—. Falguère.
Montsouris (near Paris)			30.43	773.0	46.9	8.3	46		7.4	3.33			9kn		N	0.039	1.0		Marié Davy.
Perpignan	29.98	761.5			49.1	9.5	34	WNW	26.2	11.67			2		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.14	773.1	48.6	9.2	42	NNE			2		9			0.051	1.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.41	773.1	50.7	10.4	43	NNE			3		2		NW	0	0		C. Marquet.
Versailles, (near Paris)			30.44	773.1	49.3	9.6	44	NE			3		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.14	765.6	39.2	4.0	54	NW			3		7			0.083	2.1		Prof. Hoh.
Berlin			30.21	767.2	41.9	5.5	66	NW			1		8			0.090	2.3		Prof. Arndt.
Breslau			30.19	766.8	39.9	4.4	62	WNW			3		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.33	770.4	41.2	5.2	62	NW			1-2		10			0.059	1.5		A. Senz.
Cassel			30.20	767.0	45.9	7.7	57	NW			4		4			0	0		Dr. H. Möhl.
Cologne			30.32	770.2	42.1	5.6	83	NW			4		6			0	0		Dr. Garthe.
Emden			30.34	770.7	41.4	5.2	86	WNW			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.57	776.5	43.3	6.2	63	NW			4		8			0	0		Physical Society.
Friedrichshafen			30.33	770.4	40.1	4.5	68	N					10			0.028	0.7	Snow	M. Wilhelm.
Hamburg			30.21	767.4	36.4	8.0	61	NW			4		5			0.016	0.4		W. Reinert.
Kiel			30.11	764.7	44.7	7.0	62	NW			5		5			0.039	1.0		Prof. G. Karsten.
Königsberg			30.07	763.7	38.1	3.4	77	W			2		2			0.004	0.1		Prof. E. Luther.
Köslin			30.30	769.7	36.3	2.4		NW			2		10			0	0		Dr. T gert.
Leipsic			30.24	768.0	34.3	1.3	98	W			1		10			0.102	2.6	Rain & hail	Prof. Bruhns.
Münster			30.30	769.6	44.2	6.8	77	SW			2		10			0.059	1.5	Rain	Prof. E. Heis.
Posen			30.13	765.1	42.3	5.7	63	W			1		9			0.106	2.7	R'n-fall for preceding 48 hours.	Dr. Mageser.
Strassburg, (in Alsace)			30.34	770.5	43.9	6.6	39	NW					6			0	0		Hartwig and Tölk.
Stuttgart			30.31	769.9	39.9	4.4	59	NE					6			0	0		Mr. Würth.
Thorn			30.09	764.2	38.5	3.6	85	W			1		10			0	0		Dr. [illegible]senbalg.
Treves, (Trier)			30.30	769.5	42.0	5.9	68	NW			6		10			0.008	0.2		Prof. Flesch.
Wustrow			30.15	765.9	35.6	2.0	91	W			2		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.03	762.8	48.0	8.9	73	ESE	11.9	5.3			9	E		0	0		
Mondovi			30.04	762.9	39.2	4.0	67	W			4		10			0.346	8.6		
Genoa			29.87	758.6	48.0	8.9	54	N	11.9	5.3			10	E		0	0		
Pavia			29.98	761.6	46.4	8.0	76	SE			2		10			0	0		
Verona			29.94	760.4	48.4	9.1	46	E			2		10	E		0	0		
Padua			29.95	760.7	49.5	9.7	64	E	13.7	6.1			10	ENE		0.008	0.2	Rain	
Parma																			
Bologna			29.91	759.8	44.8	7.1	43	ENE			6		10			0	0	Rain	
Livorno			29.77	756.1	49.1	9.5	59	NE	8.7	3.9			10			0	0		
Urbino			29.84	757.8	42.3	5.7	100	E			6		10			2.126	54.0	Rain	
Ancona																			
Siena			29.76	755.8	46.0	7.8	76	ENE	9.4	4.2			10	E		0.028	0.7		
Rome			29.75	755.7	50.4	10.2	79	SE	3.1	1.4			10			0.307	7.8	Rain	
Naples, O. U.			29.74	755.3	54.0	12.2	72	NE			2		10	SW		0.020	0.5		
Lecce			29.87	758.7	52.7	11.5	76	E	26.6	11.9			10			0	0		
Cosenza			29.77	756.1	58.3	14.6	31	SE			1		10			0.480	12.2	Rain	
Catania, (Sicily)																			
Riposto			29.77	756.2	59.4	15.2	83	N			2		10	NW		0.815	20.7		
Palermo			29.74	755.4	56.7	13.7	54	WSW			2		7			0.012	0.3		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.44	773.1	42.8	6.0		NW			3								
Groningen			30.23	767.8	41.2	5.1		NW			3								
Helder			30.32	770.0	41.4	5.2		WNW			4								
Utrecht			30.3[illegible]	770.1	44.1	6.7		NW			3		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.05	763.2	38.8	3.8	90	SSE	6.0	2.7			10			0.787	20.0		
Christiania			29.93	760.1	42.4	5.8	52	SW	1.6	0.7			3			0	0		
Tromsö			29.5[illegible]	749.7	31.3	− 0.4	94	SSW			6		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.72	754.9			61.9	16.6	63	ESE	4.9	2.2			2						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.10	764.5	37.8	3.2	87	W	4	2			10						Astronomical Obs.
Wilna			30.04	763.0	39.2	4.0	70	WSW	8	3.5			9						Astronomical Obs.
Dorpat			29.93	760.2	34.3	1.3	80	WSW	7	3			10						Physical Cabinet.
St. Petersburg			29.80	757.0	29.8	− 1.2	84	W	9	4			10					Snow	Central Physical Obs.
Kieff			30.11	764.8	37.4	3.0	68	SSW	4	2			9						Physical Cabinet.
Nikolaiev			30.21	767.2	38.8	3.8	70	S	4	2			8						
Kertch			30.23	767.9	37.9	3.3	73	NW	8	3.5			10						Lagorio.
Moscow			29.99	761.7	32.7	0.4	64	W	8	3.5			9						Meteorological Obs.
Lugan			30.06	763.5	31.8	0.1	74	W	8	3.5			2						Meteorological Obs.
Archangel			29.99	761.7	29.8	− 1.2	73	ESE	8	3.5			10						Ogorodnikof.
Tiflis			30.09	764.4	50.0	10.0	41	NNW	13	6			10						Physical Obs.
Astrakhan			30.08	763.9	31.1	− 0.5	75	WNW	13	6			10						Sebastianof.
Kasan			29.71	754.5	31.3	− 0.4	72	N	10	4.5			7						Physical Cabinet.
Orenburg			29.53	750.1	34.5	1.4	94	W	8	3.5			10						Tschernischef.
Ekaterinburg			29.81	757.2	17.8	− 7.9	92	N	10	4.5			10					Snow	Meteorological Obs.
Kasaly			29.91	759.6	47.1	8.4	76	SW	13	6			10						Bobrof.
Tashkend			30.04	763.1	69.6	20.9	69	Calm	0	0			10						Michelson.
Barnaul			30.05	763.2	39.4	4.1	61	NE	4	2			4						Meteorological Obs.
Yeniseisk			29.97	761.1	34.3	1.3	66	E	4	2			9						Marks.
Irkutsk																			Usolzef.
Oorga			30.59	774.6	10.2	12.2	99	NW	4	2			0						Mossin.
Peking, (China)			30.00	762.1	43.2	6.2	44	NW	17	7.5			5						Physical Observatory.
Nertchinsk			30.08	764.0	22.6	− 5.2	68	NW	8	3.5			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.17	766.4	58.1	14.5	29	N	10.3	4.6		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.81	757.1	31.6	— 0.2	100	NE			2		10			0	0		
Hernosand			29.72	754.9	46.2	7.9	48	WSW			2		6			0.028	0.7		
Stockholm			29.89	759.2	39.4	4.1	69	WSW			4		9			0	0		
Wisby			29.99	761.7	34.2	1.2	78	W			2		5			0	0		
Sub-Series.																			
Upsala			29.89	759.1	37.0	2.8	78	SW			2		3			0	0		Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.77	730.7			41.0	5.0	38	NNE			6		7			0	0		The Observatory.
Zurich	28.60	726.4			38.3	3.5	68	N			1		7			0.012	0.3		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.4mm.; Thermometer, —4°.5 C.; Relative Humidity, —20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.07	763.6	57.2	14.0	59	W			2		5					Rain	
Constantinople			30.04	763.0	48.7	9.3	56	ENE	5.6	2.5			0			0.268	6.8		
Fao, (Persian Gulf)			30.11	764.8	66.2	19.0		NW			3		0						
Salonica			30.00	762.1	54.1	12.3		NW			3		10						
Valona			29.84	758.0	59.7	15.4		SE			2		8						
Varna			30.08	764.0	46.4	8.0		SE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.42	772.7	27	— 2.8		Calm	0	0		0	1s		SW	0	0		
Cape Roziere, Quebec			30.20	767.1	16	— 8.9	83	NW	10	4.5		1c	0	NW		0.10	2.5		
Chatham, N. B.			29.90	759.4	18	— 7.8	84	Calm	0	0		2c	0			0	0		
Charlottetown, P. E. Island			30.27	768.8	21	— 6.1	69	W	10	4.5		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			29.66	753.4	32	0.0	95	SE	9	4.0		0	5ks		SW	0	0		
Halifax, N. S.			30.22	767.6	26	— 3.3	79	NW	6	2.7		0	0			0	0		
Kingston, Ontario			30.38	771.6	24	— 4.4	79	E	1	0.4		1k	0	W		0	0		
Montreal, Quebec			30.24	768.1	25	— 3.9	85	S	5	2.2		5c	5ks	NW		0	0		
Ottawa, Ontario			30.40	772.1	20	— 6.7	92	N	4	1.8		4k	0	W		0	0		
Parry Sound, Ontario			30.28	769.1	25	— 3.9	92	SE	14	6.3		0	0			0	0		
Port Dover, Ontario			30.29	769.4	28	— 2.2	77	NE	5	2.2		0	0			0	0		
Port Stanley, Ontario			30.27	768.8	28	— 2.2	88	E	6	2.7		0	0			0	0		
Quebec, Quebec			30.41	772.4	15	— 9.4	65	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.25	768.3	24	— 4.4	93	Calm	0	0		0	0			0	0		
Stayner			30.26	768.6	28	— 2.2	82	SE	1	0.4		0	0			0	0		
Sydney, C. B.			30.15	765.8	29	— 1.7	68	W	14	6.3		2c	2ks		NW	0	0		
Toronto, Ontario			30.32	770.1	27	— 2.8	73	N	2	0.9		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.46	773.7	29	— 1.7	67	Calm	0	0		0	0			0	0		
Alpena, Mich.			30.21	767.3	25	— 3.9	75	Calm	0	0		0	Sm'e			0	0		
Atlantic City, N. J.			30.41	772.4	37	2.8	80	NE	13	5.8		10cs	0	NW		0	0		
Augusta, Ga.			30.11	764.8	56	13.3	100	NW	4	1.8			10n			1.56	39.6	Light rain	
Baltimore, Md.			30.41	772.4	41	5.0	65	E	2	0.9			10s		SE	0	0	Threatening	
Barnegat, N. J.			30.41	772.4	38	3.3	80	SW	4	1.8		5cs	0			0	0		
Benton, Montana			29.72	754.9	32	0.0	50	SW	28	12.5			10s			0	0		
Bismarck, Dakota			29.43	747.5	31	— 0.6	60	N	5	2.2		5k	0	N		0	0		
Boston, Mass.			30.45	773.4	33	0.6	56	NW	4	1.8		2c	0	NW		0	0		
Breckenridge, Minn.			29.71	754.6	36	2.2	90	SE	12	5.4		0	0			0	0		
Buffalo, N. Y.			30.28	769.1	38	3.3	45	S	2	0.9		0	0			0	0		
Burlington, Vt.			30.43	772.9	30	— 1.1	78	[illegible]	6	2.7			10s			0	0		
Cairo, Ill.			30.08	764.0	50	10.0	93	Calm	0	0			10s			0.11	2.8		
Cape Hatteras, N. C.			30.11	764.8	57	—13.9	93	E	11	4.9			10n		E	0.54	13.7	Heavy rain	
Cape Henry, Va.			30.31	769.9	42	5.6	83	NE	37	16.5			10n		NE	0.04	1.0	Light rain	
Cape May, N. J.			30.42	772.7	39	3.9	72	E	10	4.5			10s			0	0		
Charleston, S. C.			30.10	764.5	58	14.4	94	NE	8	3.6			10s			0.02	0.5		
Cheyenne, W. T.			29.62	752.3	36	2.2	45	S	1	0.4		0	0			0	0		
Chicago, Ill.			30.11	764.8	40	4.4	82	SE	5	2.2		Haze	0			0	0		
Cincinnati, Ohio			30.15	765.8	45	7.2	68	N	4	1.8			10s			0.07	1.8		
Cleveland, Ohio			30.20	767.1	38.9	3.8	63	SE	8	3.6		0	0			0	0		
Colorado Springs, Col.			29.58	751.3	49	9.4	12	NE	12	5.4		0	0			0	0		
Corsicana, Texas			29.92	76[illegible].6	63	17.2	83	S	4	1.8		5k	0	S		0	0		
Davenport, Iowa			30.06	763.5	38	3.3	80	E	4	1.8		2ck	2s	W		0	0		
Denver, Col.			29.64	752.8	40	4.4	31	S	7	3.1		0	0			0	0		
Detroit, Mich.			30.22	767.6	31	— 0.6	68	E	1	0.4		0	Sm'e			0	0		
Dodge City, Kansas			29.31	744.5	52	11.1	79	S	14	6.3		5c	0			0	0		
Dubuque, Iowa			30.04	763.0	37	2.8	81	SW	4	1.8			10s			0	0		
Duluth, Minn.			30.00	762.0	28	— 2.2	88	NE	8	3.6			10s			0	0		
Eastport, Me.			30.36	771.1	23	— 5.0	73	N	7	3.1		0	0			0	0		
Erie, Penn.			30.22	767.6	40	4.4	56	SE	22	9.8		0	Haze			0	0		
Escanaba, Mich.			30.17	766.3	20	— 6.7	56	S	2	0.9		5cs	0			0	0		
Fort Gibson, I. T.			29.86	758.5	55	12.8	87	SE	12	5.4			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.44	747.8	44	6.7	60	SE	8	3.6		0	5s			0	0		
Galveston, Texas			29.98	761.5	66	18.9	90	E	12	5.4		0	5ks			1.38	9.7	Clearing	
Grand Haven, Mich.			30.19	766.8	30	— 1.1	64	E	4	1.8		0	0			0	0		
Indianapolis, Ind.			30.13	765.3	40	4.4	72	NE	2	0.9			10s			0	0		
Indianola, Texas			29.94	760.5	70	21.1	95	S	4	1.8		1k	1s	SW		0	0		
Jacksonville, Fla.			30.12	765.0	67	19.4	84	SW	3	1.3			10s			0	0		
Keokuk, Iowa			29.98	761.5	42	5.6	83	SE	8	3.6			Fog			0	0	Fog	
Key West, Fla.			30.08	764.0	76.6	24.8	72	SE	7	3.1		Haze	Haze			0	0		
Kittyhawk, N. C.			30.23	767.8	45	7.2	100	NE	32	14.3			10n		NE	0.65	16.5	Heavy rain	
Knoxville, Tenn.			30.12	765.0	49	9.4	92	NE	3	1.3			10s			0.76	19.3		
La Crosse, Wis.			30.03	762.7	42	5.6	74	S	6	2.7			10s			0	0		
Leavenworth, Kan.			29.80	756.9	50	10.0	71	SE	6	2.7		Sm'e	2s			0	0		
Lexington, Ky.			30.12	765.0	48	8.9	92	E	3	1.3		0	Fog			0.52	13.2	Fog	
Long Branch, N. J.			30.44	773.2	37	2.8	80	NE	5	2.2		5cs	0	NE		0	0		
Louisville, Ky.			30.11	764.8	47	8.3	77	Calm	0	0			10s			0.16	4.1		
Lynchburg, Va.			30.35	770.9	39	3.9	91	NE	8	3.6			10s			0.39	9.9		
Malone, N. Y.																			
Marquette, Mich.			30.09	764.3	30	— 1.1	78	SE	4	1.8		5cs	0			0	0		
Memphis, Tenn.			30.08	764.0	53	11.7	100	NE	4	1.8			10s			0.16	4.1		
Milwaukee, Wisconsin			30.16	766.1	33	0.6	89	SE	8	3.6		2cs	Sm'e			0	0		
Mobile, Ala.			30.06	763.5	65	18.3	89	S	4	1.8			10s			0.30	7.6		
Montgomery, Ala.			30.11	764.8	62	16.7	94	Calm	0	0			10s			1.03	26.2		
Morgantown, W. Virginia			30.21	767.3	47	8.3	62	E	4	1.8		0	0			0.11	2.8		
Mt. Washington, N. H.			30.17	766.3	10	—12.2	79	NW	29	13.0		8c	0	W		0	0		
Nashville, Tenn.			30.09	764.3	52	11.1	93	Calm	0	0			10s			1.23	31.2	Mist	
New Haven, Conn.			30.47	773.9	34	1.1	51	NE	8	3.6		2c	1s	SW		0	0		
New London, Conn.			30.47	773.9	38	3.3	58	N	3	1.3		5c	0	W		0	0		
New Orleans, La.			30.08	764.0	67	19.4	74	NW	8	3.6			10ks		NW	0.01	0.3	Threatening	
Newport, R. I.																			
New York, N. Y.			30.45	773.4	36	2.2	62	SE	8	3.6		0	Fog			0	0		
Norfolk, Va.			30.29	769.4	41	5.0	91	NE	21	9.4			10n			0.15	3.8	Light rain	
North Platte, Neb.			29.18	741.1	48	8.9	100	SE	10	4.5			Fog			0	0	Fog	
Omaha, Neb.			29.73	755.1	47	8.3	77	SE	12	5.4		5c	Haze	W		0	0		
Oswego, N. Y.			30.37	771.4	30.8	— 0.8	73	SSE	6	2.7		Haze	Haze			0	0		
Peck's Beach			30.43	772.9	39	3.9	72	E	12	5.4			10s			0	0		
Pembina, D. T.			29.62	752.3	38	3.3	71	SE	8	3.6		5c	2s			0	0		
Philadelphia, Penn.			30.42	772.7	39	3.9	63	E	3	1.3		2ck	2s	W	E	0	0		
Pike's Peak, C. T.			29.64	752.8	6	—14.4	100	NW	46	20.6		5k	1s	W		0	0		
Pittsburgh, Penn.			30.27	768.8	39	3.9	72	E	1	0.4		0	Sm'e			0	0		
Port Huron, Mich.			30.24	768.1	30	— 1.1	68	SE	4	1.8		0	0			0	0		
Portland, Maine			30.46	773.7	26	— 3.3	64	W	6	2.7		2c	Haze	NW		0	0		
Portland, Or.			30.15	765.8	38	3.3	81	SW	8	3.6			10n			0.21	5.3	Light rain	
Punta Rassa, Fla.			30.14	765.5	70	21.1	82	SE	8	3.6		2cs	Sm'e			0	0		
Rochester, N. Y.			30.31	769.9	34	1.1	69	SE	8	3.6		Haze	0			0	0		
Salt Lake City, Utah			29.61	752.1	39	3.3	9	N	6	2.7			10n			0.29	7.4	Rain	
Sandy Hook, N. J.			30.42	772.7	37	2.8	66	E	4	1.8		8c	0	W		0	0		
San Diego, Cal.			30.03	762.7	55	12.8	87	W	12	5.4			10s			0	0		
San Francisco, Cal.			30.17	766.3	43	6.1	51	NW	12	5.4		Haze	0			0.31	7.9		
Santa Fe, N. M.			29.55	750.6	41	5.0	25	SE	8	3.6		2c	0	SW		0	0		
Savannah, Georgia			30.10	764.5	61	16.1	94	NW	4	1.8			Fog			0	0	Fog	
Shreveport, La.			30.00	762.0	63	17.2	100	ESE	1	0.4			Fog			0.06	1.5	Fog	
Springfield, Mass.			30.47	773.9	34	1.1	61	SW	4	1.8		2ck	Haze			0	0		
St. Louis, Mo.			30.06	763.5	47	8.3	85	SE	8	3.6			10s			0	0		
St. Marks, Fla.			30.11	764.8	66	18.9	94	NW	2	0.9			10ks			0	0		
St. Paul, Minn.			29.83	757.7	39	3.9	72	E	4	1.8		5cack	0			0	0		
St. Paul's Island, Alaska			29.96	761.0	20	— 6.7	70	N	6	2.7		ck	10k			0.04	1.0	Snow	
Squan Beach, N. J.			30.33	770.4	36	2.2	70	NE	8	3.6		2c	0	W		0	0		
Toledo, Ohio			30.14	765.5	33	0.6	79	NE	4	1.8		0	0			0	0		
Tybee Island, Ga.			30.12	765.0	61	16.1	100	Calm	0	0			10s			0.01	0.3		
Vicksburg, Miss.			30.10	764.5	62	16.7	88	SE	8	3.6			10n			1.42	36.1	Light rain	
Virginia City, Mon.			29.44	747.8	19	— 7.2	85	S	1	0.4			10s			0.33	8.4		
Washington, D. C.			30.39	771.9	36.5	2.5	85	E	4	1.8			10s		E	0.03	0.8		
Wilmington, N. C.			30.16	766.1	45	7.2	92	N	12	5.4			10n			0.39	9.9	Light rain	
Wood's Hole, Mass.			30.46	773.7	38	3.3	54	NE	3	1.3		0	5s			0	0		
Wytheville, Va.			30.07	763.8	40	4.4	82	E	8	3.6			10s			0.92	23.4	Threatening	
Yankton, D. T.			29.69	754.1	47	8.3	73	E	10	4.5			10s		NE	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.12	765.0	78	25.6		NE	4	1.8		5k	2ks	N		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.06	763.5	73	22.8		E				0	5ks			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.84	757.9	75	23.9	76	SE	7.2	3.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	75	23.9		Calm	0	0		1k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.25	768.3			76	24.4		NE	4	1.8		2ck	2k	NW		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	73	22.8	76	N	2.4	1.1		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.16	766.1	64.5	18.1	78	Calm	0	0		2ck	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	65	18.3		NE			1	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	63	17.2	78	Calm	0	0		0	4n			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.12	765.0	0.0	—17.8	100	E	20	8.9		1cs	0	W		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.07	763.8	62	16.7		S	2	0.9		2c	2k	S		0	0		C. Partridge.
St. John's, Newfoundland			30.08	764.0	31	— 0.6	89	NE				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.08	763.9	— 3.3	26.0	68	SW			1	4c	3ks			0	0		Leon M. Acuña.
Ellyria, Ohio			30.23	767.8	35	1.7	79	SE	4	1.8		0	4s			0	0		H. M. Redington.
Indianola, Iowa	29.01	736.8			46	7.8		SE			2	4ck	0	W		0.03	1.8		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS

TAKEN SIMULTANEOUSLY ON MARCH 30, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.32	770.2															Charnot.
Algiers			30.23	767.7	56.8	13.8	64	N			1		2			0.094	2.4	Rain	Peter.
La Calle			30.00	762.1															Kuntz.
Tunis			29.95	760.6	56.5	13.6	70	NW			5		7			0.134	3.4		Jacques.
Sfax			30.01	762.3															Chauvey.
Salda			30.30	769.8	59.7	15.4		NNW			1		2			0	0		Grosjean.
Tebessa			30.07	763.7															Colin.
Geriville			30.32	770.1	50.9	10.5		NNW			2		2			0	0		Bernadach.
Laghouat			30.25	768.4	54.3	12.5	40	NW			2		2			0	0		Poinsignon.
Biskra			30.14	765.6	61.9	16.6	31	NW			3		3			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.21	767.2	45.0	7.2	46	NE			5		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.28	769.1	38.3	3.5	67	NE			2		5			0.087	2.2		I. R. Observatory.
Eperies			30.20	767.1	40.6	4.8	67	N			2		9			0	0		Julius Mikolik.
Gratz			30.20	767.1	45.7	7.6	59	NE			5		2			0	0		Andreas Rospini.
Hermannstadt			30.05	763.2	50.0	10.0	50	ESE			1		7			0	0		Prof. Reissenberger.
Kremsmünster			30.32	770.2	39.9	4.4	62	W			2		7			0	0		Prof. C. Wagner.
Lemberg			30.17	766.2	35.6	2.0	93	N			1		10			0.110	2.8	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.17	766.3	43.9	6.6	71	NE			4		8			0	0		Habsuda Daniel.
Pola			30.02	762.4	45.3	7.4	43	E			6		10s			0	0		I. R. Hydrographic Office
Szegedin			30.15	765.8	42.8	6.0	70	SE			2		10			0	0		Karl Stancel.
Trieste			30.15	765.8	47.7	8.7	32	ENE			5		10			0	0		Prof. V. Farolfi.
Vienna			30.26	768.6	45.0	7.2	55	NW			1		6			0.008	0.2	Rain	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.24	768.0			56.0	10.0	63	NNE			1		10		N	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.42	772.7	52.0	11.1		WNW	19	8.5			6			0.005	0.13		William Boswell.
Annanhill																			
Ardrossan			30.53	775.4	51*	10.6		WNW			2		6					Rainy	William McNeil.
Armagh Observatory			30.60	777.2	52.3	11.3		W	7	3.1			9						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.53	775.4	49.0	9.4		WNW			3		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.63	778.0	50.7	10.4		WNW			1		10						J. Dreyer, for L'd Rosse
Bradford			30.45	773.2	49.9	9.9		W			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			29.98	761.5	78.6	25.9		NE			4		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.48	774.2	53.0	11.7		NNW			1		4						H. Todd.
Cape Town, (Cape Colony)			29.82	757.4	88	31.1		SE			4		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.87	758 7			84.0	28.9	35	S	20	8.9			2						The Staff, for E. J. Stone.
Cardington			30.51	774.9	53.4	11.9		NW					10						John McLaren.
Carlisle			30.48	774.2	53.1	11.7		NW					8			0.01	0.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.46	773.7	51.9	11 1		NNW			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.94	760.5	78.0	25.6		SE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.63	778.0	45.8	7.7		NE			1		10						R. E. Power.
Donaghadee			30.57	778.7	48	8.9		N			3		10						J. Mac Gowan, Jr.
Dover			30.48	774.2	51	10.6		NE			2		6						J. Costello.
Dublin																			
Durham Observatory			30.44	773.2	52.6	11.4		WNW					10						G. D. Goldney.
Eccles, (near Manchester)			30.51	774 9	50.9	10.5		NW	2.6	1.2			10						Thomas Mackereth.
Falmouth Observatory			30.58	776.7	53.4	11.9		N	17	7.6			9						The Staff.
Fort Napier, (Natal)			30.09	764.3	65.0	18.3		E			2		10						Pvt. G. Salmon.
Galway, Queen's College			30.60	777.2	51	10.6		N			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.13	765.3	59.2	15.1		ENE			5		10						Sergt. E. G. Baker.
Glasgow Observatory			30.48	774.2	51.9	11.1		WNW			3		5						James Gray.
Gloucester, G. Co. Asylum																			
Great Yarmouth			30.47	773.9	48	8.9		N			2		6						G. T. Watson.
Greenwich Royal Obs.			30.50	774.7	54.1	12.3		N			1		10						The Staff, for G. B. Airy.
Guernsey			30.53	775.4	50	10.0		NNE			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.44	773.2	50.6	10.3		NW					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.32	770.1	27.0	— 2.3		N			2		0						Corp'l J. Y. Thompson.
Helston			30.54	775.7	57	13.9		NNE			6		6						Dr. W. B. Moyle.
Holyhead			30.57	776 5	49	9.4		WNW			3		1						John Tilston.
Hull Park																			
Kew Observatory			30.50	774.7	52.7	11.5		NNW	4	1.8			9						The Staff.
Kingstown			30.61	777.5	50	10.0		NW			3		8						George Mitchell.
Lampeter																			
Leicester Museum			30.50	774.7	50.6	10.4		NW			1		10						William J. Harrison
Llandudno			30.56	776.2	52.2	11.2		NW					9						Dr. James Nicol.
Malta, (Mediterranean)			29.97	761.2	56.5	13.6		NW			2		8						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.42	772.7	56	13.3		W			1		8						William D. Penny.
Nassau, (Bahamas)			30.19	766.8	75.2	24.0		NE			2		5						Surg.-Maj. J. Jameson.
North Shields			30.47	773.9	51	10.6		E			1		7						John Wm. Irvine.
Nottingham			30.51	774.9	52.2	11.2		WNW			2		10k		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.52	775.2	49.3	9.6		NNW			2–3		10					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.48	774.2	53	11.2		N			3		10						J. Lucas, for R. Main.
Plymouth			30.54	776 0	52	11.1		N			1		10					Mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.16	766.1	51	10.6		NNW			2		5						W. Kennedy.
Saint Ann's Head			30.59	777.0	51	10.6		N			3		5						John C. Walker.
Saint Helier, (Jersey)			30.54	775.7	52	11.1		NNE			3		10						A. P. Amy.
Sandwick Manse (Orkneys)			30.33	770.4	47	8.3		W	23	10.3			8						Rev. C. Clouston
Scarborough			30.47	773 9	50.3	10.2		N			1		9						F. Shaw.
Scutari, (Turkey)			30.10	764.5	51.8	11.0		NE			2		7					Mist	Sergt. W. H. Lyne.
Sheffield			30.49	774.4	53.4	11.9		NNW			2		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.49	774.4	56.1	13.4		WNW			2		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.46	773.8	51.3	10.7		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.51	774.9	48	8.9		W			1		10						The Staff.
Stornoway, Lews C. (Hebr).			30.45	773.4	52	11.1		W			4		8						John Smith.
Strathfield Turgiss			30.51	774.9	55.4	13.0		N			1		9ks					Smoke	Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)			30.18	766.6	49	9.4		NW			5		10						William Lawrence.
Taunton College																			
Thurso			30.36	771.1	52	11.1		WNW			5		3						John Trotter.
Truro Royal Institution			30.50	774.7	55	12.8		N			6		5						W Newcombe.
Valencia Observatory			30.63	778.0	51.8	11.0		NNW	8	3.6			9						The Staff.
Wick																			
Wisbeach																			
Worthing			30.52	775.2	53	11.7		NNW			1		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.04	763.0	42.6	5.9	91	W			2		10						
Fanöe			30.20	767.0	39.9	4.4	98	W			4		10					Mist	
Godthaab, (Greenland)			29.85	758.1	16.7	— 8.5		NE			4		5						
Stykkisholm, (Iceland)			29.72	755.0	40.6	4.8	97	Calm			0		10					Rain	
Thorshavn, (Faröe)			30.14	765.5	48.9	9.4	84	WNW			6		8						
Vestervig			30.06	763.4	42.8	6.0	88	NW			7		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.84	757.8	56.1	13.4	60						5k						Normal School.
Alençon			30.48	774.1	52.2	11.2	48	N			3		10			0	0		Normal School.
Amiens			30.51	775.0	52.2	11.2	95	N			3		0			0	0		Normal School.
Beaumette, (near Angers)			30.45	773.3	51.1	10.6	52	NE	5.8	2.6			10		NE	0	0		Beaumette Observatory.
Beauvais			30.47	774.0	50.5	10.3	48	ENE			2		8		NE	0	0		Normal School.
Besançon			30.38	771.7	45.7	7.6	75	NE			4		5		NE	0	0		Normal School.
Bourges			30.45	773.3	45.3	7.4		N			4		5			0	0		Normal School.
Brest			30.47	773.9	52.0	11.1	58	NE			3		10		NE	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			Normal School.
Chartres			30.45	773.3	46.4	8.0		NE			3		4ck		NE	0	0		Normal School.
Chaumont			30.47	773.8	42.3	5.7		NNW			4		5		NW	0.059	1.5		Normal School.
Le Mans			30.47	773.8	50.5	10.3	44	NNE			2		5		N	0	0		Normal School.
Mirecourt			30.32	770.2	42.4	5.8		N			1		8kn		NNE	0	0		Normal School.
Orleans			30.44?	773.1?	46.8	8.2	75	NW			2		5		NW	0	0		Normal School.
Paris			30.46	773.6	48.6	9.		N			2		10k		NNE	0	0	Fog	National Observatory.
Parthenay			30.50	774.8	45.5	7.5	75	NE			2		1		NE	0	0		Normal School.
La Roche sur Yon			30.47	773.9	50.0	10.0	54	NNE			2		10		SSW	0	0		Normal School.
Rouen			30.43	773.0	53.6	12.0	66	N			2		10		N	0	0		Normal School.
Saint Lo			30.47	773.9	46.2	7.9	82	NE			2		0		NE	0	0		Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.90	632.4			28.0	— 1.7	62	N	16.8	7.50			5		N	0	0		—. Faignère.
Montsouris (near Paris)			30.43	773.0	48.4	9.1	51	N	5.5	2.47			10k		NW	0	0		Marié Davy.
Perpignan	30.05	763.3			53.2	11.8	34	WNW	18.6	8.33			4		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.44	773.1	48.7	9.3	55	NNE			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.43	772.9	52.0	11.1	56	NE			2		8		ENE	0	0		C. Marquet.
Versailles, (near Paris)			30.44	773.1	50.0	10.0	62	NE			1		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.26	768.5	42.8	6.0	71	NW			3		9			0	0	Rain	Prof. Hoh.
Berlin			30.31	769.8	45.9	7.7	78	W			2		10			0	0	Rain	Prof. Arndt.
Breslau			30.31	769.9	42.8	6.0	50	WNW			4		9			0.008	0.2		Dr. P. Neugebauer.
Carlsruhe			30.39	771.8	41.6	7.0	76	NE			1		10			0	0		A. Senz.
Cassel			30.30	769.7	49.1	9.5	66	NW			2		8			0.035	0.9		Dr. H. Möhl.
Cologne			30.39	771.8	45.3	7.4	82	NW			2		8			0	0		Dr. Garthe.
Emden			30.41	772.3	45.7	7.6	86	N			1		10			0.083	2.1		Prof. Prestel.
Frankfort on the Main			30.65	778.5	45.9	7.7	78	NW			1		4			0.043	1.1		Physical Society.
Friedrichshafen			30.39	771.8	46.4	8.0	39	SE					7			0	0		M. Wilhelm.
Hamburg			30.31	769.9	47.3	8.5	76	NW			4		10			0.024	0.6	Fog	W. Reinert.
Kiel			30.22	767.5	46.6	8.1	82	W			5		10			0.012	0.3		Prof. G. Karsten.
Königsberg			30.16	766.1	32.7	0.4	89	SW			4		9			0.008	0.2	Snow	Prof. E. Luther.
Köslin			30.41	772.4	37.8	3.2		W			2		10			0	0		Dr. T gert.
Leipsic			30.34	770.5	42.1	5.6	93	WNW			2		10			0.153	3.9	Rain	Prof. Bruhns.
Münster			30.37	771.5	49.3	9.6	77	NW			2		10			0.031	0.8	Rain	Prof. E. Heis.
Posen			30.26	768.5	44.1	6.7	63	W			1		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.38	771.7	48.9	8.9	54	NW					5			0	0		Hartwig and Tülk.
Stuttgart			30.38	771.7	42.4	5.8	70	NE					9			0	0	Rain	Mr. Würth.
Thorn			30.23	767.8	38.7	3.6	77	SW			4		3			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.35	770.9	46.4	8.0	69	SE			3		10			0.126	3.2		Prof. Flesch.
Wustrow			30.20	767.0	37.8	3.2	83	WSW			2		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.12	765.1	50.2	10.1	52	SW	3.8	1.7			1			0	0		
Mondovi			30.13	765.3	44.4	6.9	32	NW			4		2	NNW		0	0		
Genoa			30.08	763.9	53.2	11.8	27	NE	3.8	1.7			8	N		0	0		
Pavia			30.12	765.1	49.6	9.8	46	E			2		5	NE		0	0		
Verona			29.97	761.3	54.0	12.2	33	E			1		10			0	0		
Padua			30.11	764.7	48.6	9.2	38	ESE	10.5	4.7			7	NE		0	0		
Parma																			
Bologna			30.12	765.0	44.8	7.1	41	NE			6		10	ESE		0.315	8.0	Rain	
Livorno			30.00	762.1	49.6	9.8	36	NE	13.7	6.1			7			0	0		
Urbino			30.07	763.6	35.8	2.1		NE			6		10			1.575	40.0	Rain	
Ancona																			
Siena			30.00	761.1	43.7	6.5	49	NE	11.9	5.3			10	E		0	0		
Rome			29.80	756.9	54.7	12.6	48	NNW	11.9	5.3			5	E		0	0		
Naples, O.U.			29.82	757.4	54.7	12.6	62	S			2		10	W		0.102	2.6		
Lecce			29.85	758.1	55.8	13.2	65	ESE	18.6	8.3			7			0	0		
Cosenza			29.80	756.9	56.7	13.7	56	SW			2		10			0.083	2.1	Rain & hail.	
Catania, (Sicily)																			
Riposto			29.80	757.0	60.4	15.8	65	E			2		6	N		0	0		
Palermo			29.74	755.3	56.1	13.4	57	W			4		9	W		0.008	0.2		
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.49	774.4	45.0	7.2		N			2								
Groningen			30.42	770.1	46.6	8.1		NW			3								
Helder			30.40	772.1	43.0	6.1		WNW			2								
Utrecht			30.38	771.6	53.1	11.7		WNW			3		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.09	764.3	39.9	4.4	85	Calm	0	0.0			10			0.181	4.6	Rain	
Christiania			29.83	757.6	51.8	11.0	31	N	11.6	5.2			3			0	0		
Tromsö			29.44	747.8	33.1	0.6	96	S			2		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.86	758.4			60.6	15.9	28	NW	18.6	8.3			1						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.22	767.6	38.1	3.4	73	W	7	3			6						Astronomical Obs.
Wilna			30.19	766.7	39.2	4.0	72	Calm	0	0			10						Astronomical Obs.
Dorpat			30.03	762.7	36.9	2.7	68	WSW	9	4			4						Physical Cabinet.
St. Petersburg			29.87	758.6	37.2	2.9	69	SW	16	7			7						Central Physical Obs.
Kieff			30.24	768.2	38.3	3.5	67	SE	7	3			10						Physical Cabinet.
Nikolaiev			29.91	759.6	38.5	3.6	70	E	8	3.5			8						
Kertch			30.28	769.2	34.3	1.3	75	ENE	13	6			8						Lagorio.
Moscow			30.13	765.2	37.0	2.8	54	W	8	3.5			8						Meteorological Obs.
Lugan			30.23	767.8	30.6	— 0.8	71	NW	4	2			10						Meteorological Obs.
Archangel			29.85	758.1	32.0	0.0	63	Calm	0	0			3						Ogorodnikof.
Tiflis			30.09	764.4	56.5	13.6	45	SSE	8	3.5			7						Physical Obs.
Astrakhan			30.32	770.2	33.4	0.8	83	NNE	4	2			10						Sebastianof.
Kasan			30.00	761.1	33.8	1.0	75	WNW	6	2.5			1						Physical Cabinet.
Orenburg			30.09	764.3	31.6	— 0.2	74	NW	4	2			10						Tschernischef.
Ekaterinburg			29.95	760.7	21.7	— 5.7	75	W	10	4.5			10					Snow	Meteorological Obs.
Kasaly			30.32	770.2	21.0	6.1	75	NE	8	3.5			10						Bobrof.
Tashkend			29.94	760.4	68.5	20.3	72	Calm	0	0			10						Michelson.
Barnaul			29.78	756.5	36.9	2.7	84	WSW	4	2			4					Rain	Meteorological Obs.
Yeniseisk			29.42	747.2	40.1	4.5	75	E	4	2			10						Marks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			30.05	763.2	44.8	7.1	33	NW	13	6			4						Physical Observatory
Nertchinsk			29.95	760.6	22.3	— 5.4	71	Calm	0	0			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.21	767.3	57.4	14.1	30	NE	8.7	3.9		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.61	752.1	37.4	3.0	50	N			4		8			0.055	1.4		
Hernosand			29.64	752.9	41.7	5.4		NE			2		9			0	0		
Stockholm			29.74	755.5	37.2	2.9	82	SSW			2		10			0.024	0.6	Rain	
Wisby			29.95	750.8	34.9	1.6	89	WSW			4		10			0.008	0.2		
Sub-Series.																			
Upsala			29.74	755.5	37.8	3.2	77	SW			2		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.77	730.7			43.2	6.2	43	NNE			8		1			0	0		The Observatory.
Zurich	28.64	727.4			43.2	6.2	70	NE			2		3			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.5mm.; Thermometer, —3°.4 C.; Relative Humidity, —15 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.02	762.6	55.4	13.0	57	NE			2		10						
Constantinople			30.11	764.8	49.3	9.6	64	NE	11	5			8		W	0	0		
Fao, (Persian Gulf)			30.34	770.6	66.2	19.0		NW			3		0						
Salonica			29.93	762.8	54.7	12.6		NW			2		5						
Valona			29.82	757.4	54.5	12.5		SE			3		8						
Varna			30.18	766.5	53.6	12.0		N			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.28	771.6	40	4.4		Calm	0	0		0	0			0	0		
Cape Roziere, Quebec			30.29	769.4	19	— 7.2	85	NW	15	6.7		2c	0	NW		0	0		
Chatham, N. B.			30.38	771.6	19	— 7.2	84	W	1	0.4		0	0			0	0		
Charlottetown, P. E. Island			30.33	770.4	23	— 5.0	76	NW	6	2.7		0	0			0	0		
Father Point, Quebec																			
Fort Garry, Manitoba			30.05	763.3	20	— 1.7	92	NW	13	5.8			8ks		W	0	0		
Halifax, N. S.			30.26	768.6	23	— 2.2	86	N	4	1.8		0	0			0	0		
Kingston, Ontario			30.38	771.6	32	0.0	94	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.38	771.6	24	— 4.4	83	NE	8	3.6		0	0			0	0		
Ottawa, Ontario			30.40	772.1	22	— 5.6	58	N	4	1.8		0	0			0	0		
Parry Sound, Ontario			30.27	768.8	30	— 1.1	78	E	8	3.6		1c	1ks	N	N	0	0		
Port Dover, Ontario			30.28	769.1	33	0.6	89	Calm	0	0		0	0			0	0		
Port Stanley, Ontario			30.25	768.3	36	2.2	83	E	18	8.0		0	0			0.01	0.3		
Quebec, Quebec			30.43	772.9	19	— 7.2	69	Calm			0	0	0			0	0		
Saugeen, Ontario			30.21	767.3	37	2.8	90	SE	5	2.2		2c	0			0	0		
Stayner			30.25	768.3	33	0.6	85	SE	1	0.4		0	0			0	0		
Sydney, C. B.			30.27	768.8	24	— 4.4	64	N	3	1.3		3k	0	N		0	0		
Toronto, Ontario			30.32	770.1	35	1.7	89	E	5	2.2		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.39	771.9	39	3.9	80	Calm	0	0		Haze	Fog			0	0		
Alpena, Mich.			30.22	767.6	34	1.1	79	SE	4	1.8		2k	5s	SE		0	0		
Atlantic City, N. J.			30.42	772.7	40	4.4	82	NE	6	2.7		0	0			0	0		
Augusta, Ga.			30.34	770.6	47	8.3	85	NE	7	3.1			10s			0.10	2.5		
Baltimore, Md.			30.40	772.1	43	6.1	66	N	2	0.9		5ck	2s	W		0	0		
Barnegat, N. J.			30.41	772.4	39	3.9	91	SW	2	0.9		2c	0			0	0		
Benton, Montana			30.16	766.1	25	— 3.9	81	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.01	762.2	24	— 4.4	74	N	10	4.5			10s		N	0	0		
Boston, Mass.			30.40	772.1	41	5.0	57	N	5	2.2		0	0			0	0		
Breckenridge, Minn.			29.87	758.7	32	0.0	89	NW	16	7.2			10s			0.10	2.5		
Buffalo, N. Y.			30.29	769.4	40	4.0	72	E	4	1.8		0	0			0	0		
Burlington, Vt.			30.37	771.4	35	1.7	70	S	4	1.8		0	2s			0	0		
Cairo, Ill.			30.03	762.7	59	15.0	87	S	8	3.6		0	0			0	0		
Cape Hatteras, N. C.			30.20	767.1	55	12.8	93	NE	14	6.3			10ks		NE	2.96	75.2		
Cape Henry, Va.			30.34	770.6	45	7.2	92	NE	9	4.0			10s		NE	0.05	1.3		
Cape May, N. J.			30.40	772.1	41	5.0	83	NE	8	3.6		0	0			0	0		
Charleston, S. C.			30.28	769.1	47	8.3	92	N	8	3.6			10s			0	0		
Cheyenne, W. T.			29.81	757.2	17	— 8.3	100	N	16	7.2			10n			0.02	0.5	Heavy snow	
Chicago, Ill.			29.98	761.5	51	10.6	79	S	6	2.7		5k	2s	W		0	0		
Cincinnati, Ohio			30.16	766.1	50	10.0	78	SE	3	1.3		0	0			0	0		
Cleveland, Ohio			30.19	766.8	44	6.7	79	SE	16	7.2		3k	Sm'e	S		0	0		
Colorado Springs, Col.			29.86	758.4	23	— 5.0	73	N	24	10.7		5cs	0	N		0	0		
Corsicana, Texas			29.80	756.9	67	19.4	84	SE	10	4.5		8k	0	S		0	0		
Davenport, Iowa			29.88	758.9	52	11.1	93	S	4	1.8			10s			0	0		
Denver, Col.			29.89	759.2	24	— 4.4	61	N	12	5.4			10n			0	0	Light snow	
Detroit, Mich.			30.17	766.3	43	6.1	75	E	1	0.4		0	10ks			0	0		
Dodge City, Kansas			29.26	743.2	38	3.3	63	N	24	10.7			10s			0	0		
Dubuque, Iowa			29.92	76.0	47	8.3	85	SW	4	1.8			Fog			0	0	Fog	
Duluth, Minn.			29.79	756.7	37	2.8	90	NE	8	3.6			10s			0.30	7.6		
Eastport, Me.			30.40	772.1	31	— 0.6	79	NE	6	2.7		0	0			0	0		
Erie, Penn.			30.22	767.6	45	7.2	68	SE	20	8.9		0	Haze			0	0		
Escanaba, Mich.			30.01	762.2	36	2.2	100	SE	8	3.6			10n			0.40	10.2	Heavy rain	
Fort Gibson, I. T.			29.73	755.1	65	18.3	75	SE	12	5.4		4cs	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.98	761.5	31	— 0.6	84	N	28	12.5			10n			0	0	Light snow	
Galveston, Texas			29.85	758.9	69	20.6	95	SE	6	2.7			Fog			0	0	Fog	
Grand Haven, Mich.			30.03	762.7	45	7.2	84	S	11	4.9			10s			0	0		
Indianapolis, Ind.			30.08	764.1	52	11.1	79	SE	8	3.6		0	Sm'e			0	0		
Indianola, Texas			29.86	758.4	71	21.7	95	SE	8	3.6			10s			0	0		
Jacksonville, Fla.			30.24	768.1	58	14.4	81	NE	12	5.4			10s			0	0		
Keokuk, Iowa			29.79	756.7	55	12.8	87	SE	7	3.1		0	0			0	0		
Key West, Fla.			30.08	764.1	76.2	24.6	77	E	4	1.8		0	2ks			0	0		
Kittyhawk, N. C.			30.27	768.8	46	7.8	92	NE	12	5.4		10k	0	E		0.95	24.1		
Knoxville, Tenn.			30.25	768.7	50	10.0	78	NE	8	3.6			10s			0	0		
La Crosse, Wis.			29.77	756.1	53	11.7	80	S	16	7.2		5k	2s	S		0	0		
Leavenworth, Kan.			29.68	753.9	61	16.1	83	S	10	4.5		0	0			0	0		
Lexington, Ky.			30.17	766.3	52	11.1	66	SE	3	1.3		0	0			0	0		
Long Branch, N. J.			30.43	772.9	45	7.2	68	NW	1	0.4		0	Haze			0	0		
Louisville, Ky.			30.13	765.3	49	9.4	78	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.40	772.1	45	7.2	76	N	3	1.3			10s			0.01	0.3		
Malone, N. Y.																			
Marquette, Mich.			29.85	758.2	39	3.3	91	SE	20	8.9			10n			0.03	0.8	Light rain	
Memphis, Tenn.			30.04	763.0	64	17.8	83	SE	5	2.2		0	Haze			0	0		
Milwaukee, Wisconsin			29.97	761.2	40	4.4	91	SE	8	3.6			Fog			0	0	Fog	
Mobile, Ala.			30.11	764.8	67	19.4	90	Calm	0	0		0	8s			0	0		
Montgomery, Ala.			30.22	767.6	57	13.9	87	E	12	5.4			10s			0	0		
Morgantown, W. Virginia			30.26	768.6	50	10.0	63	E	1	0.4			10s			0	0		
Mt. Washington, N. H.			30.24	768.1	17	— 8.3	67	NW	26	11.6		0	Haze			0	0		
Nashville, Tenn.			30.15	765.8	56	13.3	87	SE	6	2.7			10s			0	0		
New Haven, Conn.			30.42	772.7	39	3.3	72	Calm	0	0		1cs	Sm'e	W		0	0		
New London, Conn.			30.42	772.7	39.5	4.7	78	SW	1	0.4		2c	0	W		0	0		
New Orleans, La.			30.04	763.0	67	19.4	84	SE	8	3.6			10n		SE	3.81	96.8	Light rain	
Newport, R. I.																			
New York, N. Y.			30.42	772.7	37	2.8	80	SW	4	1.8		0	0			0	0		
Norfolk, Va.			30.33	770.4	46	7.8	84	NE	10	4.5			10s			0.10	2.5		
North Platte, Neb.			29.46	748.3	23	— 5.0	59	N	18	8.0			10ks		N	0	0		
Omaha, Neb.			29.67	753.6	45	7.2	76	NW	12	5.4			10s			0	0		
Oswego, N. Y.			30.35	770.9	38.2	3.4	63	S3E	5	2.2		Haze	Haze			0	0		
Peck's Beach			30.43	772.9	42	5.6	83	NE	8	3.6		0	0			0	0		
Pembina, D. T.			30.03	764.0	16	— 8.9	75	N	12	5.4		0	5s			0	0		
Philadelphia, Penn.			30.42	772.7	41	5.0	74	E	2	0.9		0	Sm'e			0	0		
Pike's Peak, C. T.			29.55	750.6	5	—15.0	100	SW	12	5.4			Fog			0	0	Fog	
Pittsburgh, Penn.			30.28	769.1	46	7.8	76	SE	4	1.8		10k	0	NW		0	0		
Port Huron, Mich.			30.18	766.6	40	4.4	82	SE	4	1.8		2c	0			0	0		
Portland, Maine			30.43	773.0	30	— 1.1	68	NE	1	0.4		2c	0	NW		0	0		
Portland, Or.			30.45	773.4	36	2.2	80	Calm	0	0		5k	Haze			0.02	0.5		
Punta Rassa, Fla.			30.11	764.8	71.5	21.9	85	NE	5	2.2			8ks			0	0		
Rochester, N. Y.			30.20	767.1	42	5.6	65	S	4	1.8		Haze	0			0	0		
Salt Lake City, Utah			29.95	760.7	22	— 5.6	72	NE	20	8.9			10s			0.41	10.4		
Sandy Hook, N. J.			30.40	772.1	39	3.9	86	SW	2	0.9		1c	Haze	W		0	0		
San Diego, Cal.			30.11	764.8	40	4.4	56	NE	8	3.6		0	0			0.10	2.5		
San Francisco, Cal.			30.22	767.6	45	7.2	61	NW	8	3.6		0	0			0	0		
Santa Fe, N. M.			29.41	747.0	34	1.1	34	SE	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			30.30	769.6	47	8.3	85	N	6	2.7			10s			0.01	0.3		
Shreveport, La.			29.92	760.0	68	20.0	84	SSE	5	2.2		10k	0	S		0	0		
Springfield, Mass.			30.28	769.1	38.5	3.6	67	Calm	0	0		Sm'e	Sm'e			0	0		
St. Louis, Mo.			29.95	760.7	56	13.3	86	SE	10	4.5		0	0			0	0		
St. Marks, Fla.			30.16	766.1	64	17.8	83	Calm	0	0			10s			0	0		
St. Paul, Minn.			29.62	752.3	42	5.6	83	E	9	4.0			10n			0.15	3.8		
St. Paul's Island, Alaska			29.91	759.7	30	— 1.1	67	W	15	6.7		8ck	k	WNW		0.07	1.8		
Squan Beach, N. J.			30.40	772.1	40	4.4	72	W	2	0.9		0	Sm'e			0	0		
Toledo, Ohio			30.18	766.6	48	8.9	77	SE	10	4.5			10s			0	0		
Tybee Island, Ga.			30.27	768.8	47	8.3	92	N	8	3.6			10s			0	0	Threatening	
Vicksburg, Miss.			30.07	763.8	65	18.3	83	SE	8	3.6			10s			0.01	0.3		
Virginia City, Mon.			29.73	755.1	6	—14.4	76	SE	2	0.9		0	0			0	0		
Washington, D. C.			30.42	772.7	41	5.0	79	N	4	1.8			10s			0	0		
Wilmington, N. C.			30.26	768.6	46	7.8	92	NW	9	4.0			10s			0.07	1.8		
Wood's Hole, Mass.			30.41	772.4	40	4.4	73	NW	6	2.7		0	0			0	0		
Wytheville, Va.			30.16	766.1	42	5.6	83	E	3	1.3			10s			0	0		
Yankton, D. T.			29.78	756.4	34	1.1	89	NW	26	11.6			10s			0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.02	762.5	78	25.6		NE	2	0.9		5k	2s	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.92	760.0	72	22.2		E				10c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	74	23.3	81	E	2.4	1.1		1k	0	E		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.10	766.8	75	23.9		Calm	0	0		1ks	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.22	767.6			76	24.4		E	6	2.7		1ck	8k	E	N	0.15	3.8		W. S. Cameron.
Santiago de Cuba, W. I.			29.85	758.2	73	22.8	76	N	10.8	4.8		0	2k		N	0	0		Robert Mason.
St. Georges, Bermudas			30.02	762.5	67	19.4	84	SW	3.0	1.4			10n			0.345	8.8	Showery	C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	63	17.2		Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	60	15.6	80	Calm	0			2c	2n	S	NE	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.49	748.0	28.5	— 1.9	100	SE	20	8.9			10n			0	0	Light snow, sleet.	J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	59	15.0		SE	4	1.8		2c	2k	S		0	0		C. Partridge.
St. John's, Newfoundland			30.26	768.6	26.5	— 3.1	82	NE				Haze	Haze			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.05	763.2	78.8	26.0	86	S			1		8s			0.295	7.50		Leon M. Acuña.
Ellyria, Ohio.			30.22	767.6	48	7.2	85	SE	8	3.6		0	2c			0	0		H. M. Redington.
Indianola, Iowa	28.81	732.0			56	13.3		SE			1	0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON MARCH 31, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.35	771.0															Charnot.
Algiers			30.22	767.5	58.3	14.6	63	NNW			2		7			0.031	0.8	Rain	Peter.
La Calle			30.06	763.4															Kuntz.
Tunis			30.00	762.1	58.1	14.5	51	NW			5		6			0.173	4.4	Rain	Jacques.
Sfax			30.00	762.0															Chauvey.
Saïda			30.34	770.7	61.5	16.4		E			5		6			0	0		Grosjean.
Tebessa			30.07	763.7															Colin.
Gerlville			30.34	770.4	56.3	13.5		S			2		5			0	0		Bernadach.
Laghouat			30.24	768.0	54.7	12.6	28	NNE			2		0			0	0		Poinsignon.
Biskra			30.14	765.5	62.2	16.8	23	NW			4		4			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.15	765.9	51.4	10.8	53	SW			2		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.07	763.6	38.3	3.5	87	W			4		10			0.020	0.5		I. R. Observatory.
Eperies			30.05	763.3	40.3	4.6	81	S			2		10			0.015	0.37	Rain	Julius Mikolik.
Gratz			30.13	765.2	52.3	11.3	46	WNW			5		8			0	0		Andreas Rospini.
Hermannstadt			30.07	763.6	41.4	5.2	67	NW			3		10			0	0		Prof. Reissenberger.
Kremsmünster			30.25	768.4	39.8	4.4	68	WNW			3		10			0	0		Prof. C. Wagner.
Lemberg			29.97	761.2	35.6	2.0	93	W			3		10			0.016	0.4	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.08	764.1	44.6	7.0	69	SW			1		10			0	0		Habzsuda Daniel.
Pola			30.13	765.	50.[illegible]	10.1	40	[illegible]			3		6cs			0	0		I. R. Hydrographic Office
Szegedin			30.09	764.2	50.[illegible]	10.1	46	W			2		6			0	0		Karl Stancel.
Trieste			30.13	765.3	56.1	13.4	36	ENE			1		2			0	0		Prof. V. Farolfi.
Vienna			30.13	765.4	42.1	5.6	86	W			4		10			0.047	1.2		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.26	768.7			49.1	9.5	78	N			1		10		NNE	0.002	0.07		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the coöperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.53	775.4	51.5	10.8		W	14	6.3			6			0	0		William Boswell.
Annanhill																			
Ardrossan			30.61	777.5	50.	10.0		SSW			1		6						William McNeil.
Armagh Observatory			30.66	778.7	49.2	9.6		WNW	6	2.7			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.60	777.2	50.0	10.0		WNW			2		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.67	779.0	51.0	10.6		Calm			0		10						J. Dreyer, for L'd Rosse.
Bradford			30.52	775.2	51.7	10.9		W			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	80.6	27.0		NE			3		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.56	776.2	54.0	12.2		N			1		4						H. Todd.
Cape Town, (Cape Colony)			29.84	757.9	70	21.1		N			3		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.83	757.7			70.0	21.1	67	NW	24	10.7			1						The Staff, for E. J. Stone.
Cardington			30.56	776.2	56.0	13.3		N					9						John McLaren.
Carlisle			30.60	777.2	49.9	9.9		NW					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.53	775.4	51.8	11.0		E					10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.92	760.0	86.0	30.6		SW			1		2						Sgt. W. F. Hopkins
Dartmoor			30.63	778.0	47.0	8.3		NE			1		10						R. E. Power.
Donaghadee			30.63	778.0	51	10.6		W			2		5						J. Mac Gowan, Jr.
Dover			30.54	775.7	52	11.1		NE			3		7						J. Costello.
Dublin																			
Durham Observatory			30.55	776.0	53.0	11.7		WNW					10						G. D. Goldney.
Eccles, (near Manchester)			30.58	776.7	54.5	12.5		WNW	1.4	0.7			10						Thomas Mackereth.
Falmouth Observatory			30.59	777.0	53.2	11.8		N	9	4.0			10						The Staff.
Fort Napier, (Natal)			30.05	763.3	65.6	18.7		E			3		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.57	776.5	51	10.6		N			1		5						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.04	763.0	59.5	15.3		ENE			6		7						Sergt. E. G. Baker.
Glasgow Observatory			30.56	776.2	50.8	10.4		W			2		7						James Gray.
Great Yarmouth			30.54	775.7	51	10.6		N			2		6						G. T. Watson.
Greenwich Royal Obs.			30.54	775.7	54.7	12.6		NE			1		10						The Staff, for G. B. Airy.
Guernsey			30.54	775.7	50	10.0		NE			1		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.52	775.2	51.0	10.6		Calm					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.51	774.9	26.5	— 3.1		NE			3		1						Corp'l J. Y. Thompson.
Helston			30.55	776.0	56	13.3		NE			4		10						Dr. W. B. Moyle.
Holyhead			30.63	778.0	49	9.4		NNW			3		4						John Tilston.
Hull Park																			
Kew Observatory			30.55	776.0	54.9	12.7		NNE	10	4.5			10					Mist	The Staff.
Kingstown			30.67	779.0	49	9.4		NNE			1		9						George Mitchell.
Lampeter																			
Leicester Museum			30.56	776.2	55.0	12.8		NE			1		3						William J. Harrison
Llandudno			30.62	777.7	50.4	10.2		N					8						Dr. James Nicol.
Malta, (Mediterranean)			30.03	762.7	58.8	14.9		NW			1		8						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.42	772.7	53	11.7		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	74.4	23.6		NE			4		7						Surg.-Maj. J. Jameson.
North Shields			30.53	776.7	51	10.6		W			2		8						John Wm. Irvine.
Nottingham			30.58	776.7	54.7	12.6		NE			3		10k		NNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.57	776.5	53	11.7		NNE			3		9					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.56	776.2	56	13.3		N			1		10						J. Lucas, for R. Main.
Plymouth			30.56	776.2	53	11.7		NNE			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.62	777.7	52	11.1		SE			3		10						W. Kennedy.
Saint Ann's Head			30.61	777.5	52	11.1		N			3		2						John C. Walker.
Saint Helier, (Jersey)			30.53	775.4	55.2	12.3		ENE			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.48	774.2	47.1	8.4		W	22	9.8			10					Rainy	Rev. C. Clouston
Scarborough			30.56	776.2	50.3	10.2		N			1		10					Fog	F. Shaw.
Scutari, (Turkey)			30.08	764.0	51.4	10.8		NNE			2		3						Sergt. W. H. Lyne.
Sheffield			30.55	776.0	53.9	12.2		NE			1		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.58	776.7	54.2	12.3		NNW			1		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.53	775.4	47.4	8.6		NNE			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			30.59	777.0	42.7	5.9		W			1		9						The Staff.
Stornoway, Lewis C. (Hebr.)			30.51	774.9	51	10.6		W			3		10						John Smith.
Strathfield Turgiss			30.55	776.0	57	13.9		N			1		8k						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)			30.34	770.6	49	9.4		W			5		10						William Lawrence.
Taunton College																			
Thurso			30.48	774.2	52	11.1		WSW			4		4						John Trotter.
Truro Royal Institution			30.52	775.2	55	12.8		N			4		8						W Newcombe.
Valencia Observatory			30.62	777.7	53.1	11.7		E	9	4.0			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.54	775.7	58.3	14.6		NNE			1		7						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the coöperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.16	765.7	44.1	6.7	57	WSW			2		2						
Fanöe			30.25	768.4	41.9	5.5	99	NW			6		10					Mist	
Godthaab, (Greenland)			30.00	762.0	13.1	—10.5		NE			6		0						
Stykkisholm, (Iceland)			29.71	754.6	45.0	7.2	96	S			9		10					Rain	
Thorshavn, (Faröe)			30.27	768.9	50.0	10.0	79	W			6		7						
Vestervig			30.16	766.1	43.9	6.6	96	NW			6		6						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.98	761.4	53.1	11.7	44						5ok						Normal School.
Alençon			30.50	774.6	57.2	14.0	50	NE			3		10			0	0		Normal School.
Amiens			30.56	776.2	53.6	12.0	83	NE			3		10		NE	0	0		Normal School.
Beaumette, (near Angers)			30.46	773.7	52.7	11.5	54	NE	10.3	4.6			10		NE	0	0		Beaumette Observatory.
Beauvais			30.51	774.8	42.7	11.5	48	ENE			3		10		ENE	0	0		Normal School.
Besançon			30.36	771.1	50.4	10.2	60	NE			4		8		NE	0	0		Normal School.
Bourges			30.45	773.4	43.9	6.6		NE			4		5		NE	0	0		Normal School.
Brest			30.46	773.7	53.1	11.7	59	NE			3		10		NE	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.42	772.7	50.4	10.2		N			2		8k		N	0	0		Normal School.
Chaumont			30.38	771.7	51.4	10.8		N			4		5		N	0	0		Normal School.
Le Mans			30.47	773.8	52.5	11.4	48	N			2		5		N	0	0		Normal School.
Mirecourt			30.30	769.7	46.6	8.1		N			1		8kn		NNE	0	0		Normal School.
Orleans			30.37	771.3	47.8	8.8	71	NW			3		5		N	0	0		Normal School.
Paris			30.47	774.0	50.4	10.2		N			2		10k		NNE	0	0	Fog	National Observatory.
Parthenay			30.40	774.5	46.8	8.2	75	NE			2		1			0	0		Normal School.
La Roche sur Yon			30.45	773.5	53.6	12.0	65	N·E			5		8		W	0	0		Normal School.
Rouen			30.51	774.9	55.3	12.8	45	NE			2		10		NE	0	0		Normal School.
Saint Lo			30.50	771.8	47.5	8.6	80	NE			2		0		N	0	0		Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)					36.0	2.2	64	NNW	14.9	6.66			2		N	0.016	0.4		Père Pascall.
Mont-Louis	24.91	632.6																	—. Falguère.
Montsouris (near Paris)			30.46	773.7	51.6	10.9	52	NNE	10.9	4.86			10kn		NE	0	0		Marié Davy.
Perpignan	30.08	764.1			55.8	13.2	35	WNW	14.9	6.66			2			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.47	774.0	51.8	11.0	48	NE			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours								NE			2		8		ENE	0	0		C. Marquet.
Versailles, (near Paris)			30.47	774.0	50.4	10.2	56	NE			3		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)																			H. Le Lec.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.24	768.2	46.4	8.0	73	NW			4		10			0.031	0.8		Prof. Hoh.
Berlin			30.23	767.8	48.0	8.9	62	N			4		6			0.264	6.7		Prof. Arndt.
Breslau			30.15	765.7	42.4	5.8	79	NW			5		10			0.035	0.9		Dr. P. Neugebauer.
Carlsruhe			30.36	771.2	48.6	9.2	70	N			2..5		10			0.004	0.1	Rain	A. Senz.
Cassel			30.29	769.4	45.7	7.6	84	NW			2		10			0.004	0.1		Dr. H. Möhl.
Cologne			30.37	771.5	48.6	9.2	82	NNW			3		7			0	0		Dr. Garthe.
Emden			30.43	773.0	43.5	6.4	91	NNW			3		10			0.008	0.2		Prof. Prestel.
Frankfort on the Main			30.62	777.7	52.7	11.5	60	N			1		8			0.004	0.1		Physical Society.
Friedrichshafen			30.37	771.5	42.8	6.0	63	W					5			0.090	2.3	Rain	M. Wilhelm.
Hamburg			30.30	769.6	43.7	6.5	94	NW			5		10			0.004	0.1	Fog	W. Reinert.
Kiel			30.23	767.7	46.2	7.9	89	NW			4		10			0	0		Prof. G. Karsten.
Königsberg			30.00	761.9	35.9	2.2	63	NW			4		1			0.126	3.2		Prof. E. Luther.
Köslin			30.42	772.7	39.4	4.1		N			4		3			0	0		Dr. T gert.
Leipsic			30.27	768.9	41.5	5.3	97	N			2		10			0.043	1.1	Rain	Prof. Bruhns.
Münster			30.39	771.9	45.0	7.2	97	NW			3		10			0	0		Prof. E. Heis.
Posen			30.13	765.1	43.2	6.2	82	NW			5		9			0.047	1.2		Dr. Magener.
Strassburg, (in Alsace)			30.37	771.5	40.8	9.9	62	N					8			0	0		Hartwig and Tülk.
Stuttgart			30.36	771.1	47.8	8.8	75	NE					9			0.016	0.4	Rain	Mr. Würth.
Thorn			30.04	762.9	42.6	5.9	70	NW			6		8			0.079	2.0	Rain	Dr. H senbalg.
Treves, (Trier)			30.34	770.7	51.3	10.7	59	E			4		9			0.126	3.2		Prof. Flesch.
Wustrow			30.23	767.7	39.4	4.1	84	NW			2		10			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper	Clouds. Direction. Lower.	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.21	767.4	50.9	10.1	49	ESE	4.9	2.2			5	E		0	0		
Mondovi			30.21	767.3	46.8	8.2	43	NNW			4		1	E		0	0		
Genoa			30.14	765.6	55.9	13.3	25	N	4.3	1.9			2	N		0	0		
Pavia			30.20	767.0	51.1	10.6	43	N			2		1			0	0		
Verona			30.11	764.9	52.9	11.6	31	E			1		0			0	0		
Padua			30.15	765.9	51.4	10.8	32	NE	1.3	0.6			3	NE		0	0		
Parma																			
Bologna			30.17	766.2	50.9	10.5	42	WNW			4		4	S		0	0		
Livorno			30.11	764.7	53.2	11.8	33	ENE	16.8	7.5			8			0	0		
Urbino			30.16	766.1	41.5	5.3	75	NNE			6		7			0	0		
Ancona																			
Siena			30.08	764.0	47.5	8.6	41	ENE	21.7	9.7			7	E		0	0		
Rome			29.98	761.4	55.0	12.8	40	NNE	12.5	5.4			9			0	0		
Naples, O.U.			29.97	761.2	56.5	13.6	56	NE			4		9	ENE		0.016	0.4		
Lecce			29.97	761.2	52.7	11.5	77	SE	24.8	11.1			10	N		0	0		
Cosenza			29.94	760.4	57.7	14.3	53	SE			4		10			0	0	Rain & hail	
Catania, (Sicily)																			
Liposto			29.91	759.6	57.2	14.9	64	S			2		5	SW		0.028	0.7		
Palermo			29.85	758.1	56.7	13.7	56	W			4		10	W		0.012	0.3	Rain	
SUB-SERIES.																			
Naples, S. R.																			Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.53	775.4	49.6	9.8		NE			4								
Groningen			30.35	770.9	42.8	6.0		NNW			4								
Helder			30.45	773.4	42.8	6.0		NW			4								
Utrecht			30.43	772.8	48.2	9.0		NNW			3		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.18	766.6	44.6	7.0	98	NNW	18.3	8.2			10			0.197	5.0	Fog.	
Christiania			30.07	763.7	44.1	6.7	52	SSW	2.5	1.2			4			0	0		
Tromsö			29.82	757.5	30.7	— 0.7	96	NW			2		10			0.118	3.0	Snow.	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. *The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.72	754.9			762.8	17.1	30	NE	12.5	5.6			2						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.96	760.9	40.5	4.7	68	NNW	13	6			9						Astronomical Obs.
Wilna			29.74	755.5	35.4	1.9	88	SW	10	4.5			10					Rain & snow	Astronomical Obs.
Dorpat			29.76	755.8	35.2	1.8	80	NW	7	3			10					Snow.	Physical Cabinet.
St. Petersburg			29.68	753.9	34.3	1.3	89	SSE	7	3			10					Snow.	Central Physical Obs.
Kieff			30.03	762.7	39.2	4.0	70	SSW	9	4			5						Physical Cabinet.
Nikolaiev			30.17	766.2	34.9	1.6	78	ESE	8	3.5			8						
Kertch			30.11	764.7	40.8	4.9	73	NE	10	4.5			7						Lagorio.
Moscow			30.02	762.4	32.4	0.2	96	SW	8	3.5			10					Snow.	Meteorological Obs.
Lugan			30.10	764.6	32.5	0.3	78	SE	4	2			8						Meteorological Obs.
Archangel			29.79	756.7	32.0	0.0	85	SE	8	3.5			10					Snow	Ogorodnikof.
Tiflis			30.09	764.3	57.9	14.4	49	S	8	3.5			2						Physical Obs.
Astrakhan			30.30	769.6	41.7	5.4	69	NE	4	2			5						Sebastianof.
Kasan			30.08	764.1	37.4	3.0	64	W	3	1.5			4						Physical Cabinet.
Orenburg			30.13	765.3	33.6	0.9	73	NE	4	2			0						Tschernischef.
Ekaterinburg			30.00	761.9	31.1	— 0.5	73	W	13	6			3						Meteorological Obs.
Kasaly			30.30	769.6	41.4	5.2	80	NNE	8	3.5			10						Bobrof.
Tashkend			30.30	769.7	50.7	10.4	63	N	8	3.5			9						Michelson.
Barnaul			29.90	759.5	30.4	— 0.9	84	SW	4	2			4						Meteorological Obs.
Yeniseisk			29.28	743.7	34.3	1.3	91	SW	13	6			10					Snow.	arks.
Irkutsk																			Usolzef.
Oorga			29.52	749.9	29.5	— 1.4	85	Calm	0	0			10						Mossin.
Peking, (China)			29.71	754.7	48.4	9.1	36	SW	8	3.5			0						Physical Observatory
Nertchinsk			29.48	748.8	24.4	— 4.2	84	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.18	766.5	55.0	12.8	37	E	7.4	3.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.83	757.6	38.1	3.4	46	N			4		8			0	0		
Hernosand			29.80	758.4	37.8	3.2	97	NW			4		8			0	0		
Stockholm			29.92	759.9	37.6	3.1	48	NNW			4		5			0	0		
Wisby			29.95	760.8	34.5	1.4	74	NW			4		3			0	0		
Sub-Series.																			
Upsala			29.95	760.8	37.0	2.8	52	NW			4		6	N					Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.79	731.3			49.8	9.9	28	NNE			6		3			0	0	Mist	The Observatory.
Zurich	28.65	727.7			48.0	8.9	46	W			1		9			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.1mm.; Thermometer, +0°.2 C.; Relative Humidity, —30 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.90	759.4	65.3	18.5	64	NW			2		0						
Constantinople			30.09	764.3	46.9	8.3	67	NE	11	5			10		N	0	0		
Fao, (Persian Gulf)			30.16	766.0	69.8	21.0		SE			3		0						
Salonica			29.97	761.2	54.0	12.2		W			1		10					Light rain	
Valona			29.91	759.8	54.0	12.2		SW			1		10						
Varna			30.12	765.0	46.4	8.0		S			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.42	772.7	34	1.1		Calm	0	0		0	10s		W	0	0		
Cape Roziere, Quebec			30.62	772.7	19	— 7.2	84	N	8	3.6		4c	2n	N	N	0	0		
Chatham, N. B.			30.62	777.7	21	— 6.1	92	N	9	4.0		0	0			0	0		
Charlottetown, P. E. Island			30.56	776.2	25	— 3.9	87	N	10	4.5			10s			0	0		
Father Point, Quebec			30.66	778.7	24	— 4.4	85	Calm	0	0		0	0			0	0		
Fort Garry, Manitoba			30.35	770.9	8	—13.3	80	S	2	0.9		2c	2ks	S	S	0	0		
Halifax, N. S.			30.43	772.9	26	— 3.3	77	N	10	4.5		0	0			0	0		
Kingston, Ontario			30.30	771.9	38	3.3	86	Calm	0	0		2c	Sm'e			0	0		
Montreal, Quebec			30.45	773.4	28	— 2.2	82	NE	10	4.5		0	Haze			0	0		
Ottawa, Ontario			30.42	772.7	33	0.6	70	E	6	2.7		4k	0	E		0	0		
Parry Sound, Ontario			30.19	766.8	45	7.2	84	SE	13	5.8		1c	1ks	S	S	0	0		
Port Dover, Ontario			30.26	768.6	42	5.6	74	E	5	2.2		5c	0	SW		0	0		
Port Stanley, Ontario			30.20	767.1	45	7.2	91	E	25	11.2		3c	0			0	0		
Quebec, Quebec			30.58	776.7	27	— 2.8	88	NE	6	2.7		2c	0	NE		0	0		
Saugeen, Ontario			30.12	765.0	43	6.1	92	SE	11	4.9		5k	2n	E	E	0	0		
Stayner			30.19	766.8	42	5.6	74	SE	6	2.7		5c	0	W		0	0		
Sydney, C. B.			30.46	773.7	27	— 2.8	86	NE	6	2.7			10n		E	0.02	0.5		
Toronto, Ontario			30.27	768.8	40	4.4	80	E	6	2.7		5c	0	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.47	773.9	38	3.3	71	Calm	0	0		2k	0	S		0	0		
Alpena, Mich.			29.98	761.5	37	2.8	90	SE	1	0.4		5ck	0	E		0.01	0.3		
Atlantic City, N. J.			30.46	773.7	42	5.6	91	SE	6	2.7		10cs	0			0	0		
Augusta, Ga.			30.33	770.4	55	12.8	93	NE	2	0.9			10s			0.03	0.8		
Baltimore, Md.			30.42	772.7	50	10.0	64	E	1	0.4			10s		W	0	0		
Barnegat, N. J.			30.46	773.7	42	5.6	91	E	2	0.9			10s			0	0		
Benton, Montana			30.35	770.9	22	— 5.6	85	SW	8	3.6		0	0			0	0		
Bismarck, Dakota			30.35	770.9	20	— 6.7	55	N	6	2.7		0	5s			0	0		
Boston, Mass.			30.54	775.7	38	3.3	90	N	8	3.6		Haze	Haze			0	0		
Breckenridge, Minn.			30.17	766.3	20	— 6.7	85	N	28	12.5		10k	0	NW		0	0		
Buffalo, N. Y.			30.27	768.8	46	7.8	61	E	4	1.8		2cs	Sm'e			0	0		
Burlington, Vt.			30.43	772.9	40	4.4	64	S	3	1.3		0	2s			0	0		
Cairo, Ill.			29.98	761.5	63	17.2	72	S	20	8.9			10s			0	0	Threatening	
Cape Hatteras, N. C.			30.37	771.4	57	13.9	81	E	4	1.8		0	5ks			0.32	8.1		
Cape Henry, Va.			30.42	772.7	47.5	8.6	96	Calm	0	0		8k	0			0	0		
Cape May, N. J.			30.46	773.7	46	7.8	85	E	6	2.7			10s			0	0		
Charleston, S. C.			30.29	769.4	62	16.7	86	NE	10	4.5		2cs	5s	N		0.03	0.8		
Cheyenne, W. T.			30.05	763.3	10	—12.2	79	NW	12	5.4			10n			0.02	0.5		
Chicago, Ill.			29.81	757.2	63	17.2	72	S	16	7.2			10s			0	0		
Cincinnati, Ohio			30.11	764.8	59	15.0	70	SE	3	1.3		5c	0	S		0	0		
Cleveland, Ohio			30.12	765.0	50.7	10.4	72	SE	12	5.4		2k	Sm'e	S		0	0		
Colorado Springs, Col.			30.02	762.5	17	— 8.3	83	NW	16	7.2			10s			0.23	5.8		
Corsicana, Texas			29.84	757.9	58	14.4	87	E	6	2.7			10s			0.79	20.1		
Davenport, Iowa			29.74	755.4	51	10.6	93	N	16	7.2			10n		NW	0.23	5.8	Light rain	
Denver, Col.			30.17	766.3	18	— 7.8	84	NW	7	3.1			10s			0.13	3.3		
Detroit, Mich.			30.06	763.5	51	10.6	69	SE	5	2.2		1c	Sm'e			0	0		
Dodge City, Kansas			29.74	755.4	25	— 3.9	75	N	10	4.5			10n			0	0	Light snow	
Dubuque, Iowa			29.80	756.9	44	6.7	92	N	8	3.6			10n			0.08	2.0	Light rain	
Duluth, Minn.			29.97	761.2	26	— 3.3	88	NW	20	8.9			10n			0.39	9.9	Light snow	
Eastport, Me.			30.03	752.6	26	— 3.3	88	NE	10	4.5		0	0			0	0		
Erie, Penn.			30.19	766.8	50	10.0	78	SE	24	10.7		5c	2s	S		0	0		
Escanaba, Mich.			29.80	756.9	38	3.3	90	S	10	4.5			Fog			0.61	15.5	Fog	
Fort Gibson, I. T.			29.70	754.4	54	12.2	93	NE	15	6.7		8k	1s	SW		1.14	28.9		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.39	771.9	23	— 5.0	73	N	12	5.4		0	8s			0.01	0.3		
Galveston, Texas			29.90	759.4	70	21.1	95	S	10	4.5			10ks			0	0		
Grand Haven, Mich.			29.86	758.4	59	15.0	76	S	16	7.2		0	8s			0	0		
Indianapolis, Ind.			29.99	761.7	61	16.1	70	SE	14	6.3		2ck	5s		S	0	0		
Indianola, Texas			29.89	759.2	72	22.2	90	S	8	3.6			10s			0	0		
Jacksonville, Fla.			30.26	761.6	59	15.0	87	NE	4	1.8		2k	0	NE		0	0		
Keokuk, Iowa			29.87	758.7	52	11.1	100	NW	8	3.6			10n			0.05	1.3	Light rain	
Key West, Fla.			30.13	765.3	75.7	24.3	65	E	13	5.8		0	5ks			0.02	0.5		
Kittyhawk, N. C.			30.42	772.7	47	8.3	85	NE	4	1.8		5k	2s	SE		0	0		
Knoxville, Tenn.			30.27	768.8	51	10.6	86	N	4	1.8		5ks	0	W		0	0		
La Crosse, Wis.			29.78	756.4	40	4.4	100	NW	7	3.1			10n			0.24	6.1	Heavy rain	
Leavenworth, Kan.			29.82	757.4	39	3.9	81	N	6	2.7			10s			1.29	32.8		
Lexington, Ky.			30.15	756.8	58	14.4	78	S	14	6.3		2c	0	W		0	0		
Long Branch, N. J.			30.47	773.9	43	6.1	75	S	1	0.4			10s		SW	0	0		
Louisville, Ky.			30.07	763.8	60	15.6	71	SE	8	3.6		0	0			0	0		
Lynchburg, Va.			30.41	772.4	50	10.0	89	Calm	0	0			10s			0.01	0.3		
Malone, N. Y.																			
Marquette, Mich.			29.77	756.1	42	5.6	91	NW	8	3.6			Fog			0.01	0.3	Fog	
Memphis, Tenn.			30.02	762.3	64	17.8	83	SE	10	4.5			10s			0	0		
Milwaukee, Wisconsin			29.79	756.7	47	8.3	92	S	8	3.6			10ks			0	0	Light rain	
Mobile, Ala.			30.14	765.5	67	19.4	79	SE	10	4.5			10s			0	0		
Montgomery, Ala.			30.25	768.3	54	12.2	87	E	9	4.0			10s			0	0		
Morgantown, W. Virginia			30.27	768.8	47	8.3	69	Calm	0	0		0	Fog			0	0		
Mt. Washington, N. H.			30.41	772.4	25	— 3.9	87	NW	24	10.7		0	Haze			0	0		
Nashville, Tenn.			30.13	765.3	60	15.6	66	SE	11	4.9		2cs	Haze	SW		0	0		
New Haven, Conn.			30.48	774.2	41	5.0	65	NNE	10	4.5		5ck	5s	NW		0	0		
New London, Conn.			30.50	774.7	41	5.0	74	N	6	2.7		2c	2s	NW		0	0		
New Orleans, La.			30.05	763.3	70	21.1	85	SE	18	8.0			10ks		SE	0.35	8.9		
Newport, R. I.																			
New York, N. Y.			30.47	773.9	46	6.7	60	Calm	0	0			Fog			0	0		
Norfolk, Va.			30.42	772.7	50	10.0	86	Calm	0	0		8k	0			0.03	0.8		
North Platte, Neb.			29.91	759.7	26	— 3.6	75	NW	18	8.0			10ks		N	0	0		
Omaha, Neb.			29.94	760.5	29	— 1.7	89	N	22	9.8			10n			0.74	18.8	Drizzling	
Oswego, N. Y.			30.36	771.1	44.6	6.9	60	SSE	10	4.5		Haze	2s			0	0		
Peck's Beach			30.48	774.2	42	5.6	91	E	12	5.4			10s			0	0		
Pembina, D. T.			30.33	770.4	10	—11.6	79	N	4	1.8		5c	0	SW		0	0		
Philadelphia, Penn.			30.46	773.7	47	8.3	69	Calm	0	0			10s		SE	0	0		
Pike's Peak, C. T.			29.54	750.3	21	— 6.2	100	NW	28	12.5			10n			0.09	2.3	Light snow	
Pittsburgh, Penn.			30.30	769.6	40	4.4	91	Calm	0	0		0	Haze			0	0		
Port Huron, Mich.			30.09	764.3	51	10.6	65	SE	7	3.1		0	0			0	0		
Portland, Maine			30.62	777.7	33	0.6	69	NE	11	4.9		1c	Haze	NW		0	0		
Portland, Or.			30.49	774.4	41	5.0	82	Calm	0	0			10s			0	0		
Punta Rassa, Fla.			30.21	767.3	67	19.4	84	NE	12	5.4		5ck	0	E		0.54	13.7		
Rochester, N. Y.			30.29	769.4	46	6.7	61	S	4	1.8		Haze	0			0	0		
Salt Lake City, Utah			30.27	768.8	23	— 5.0	40	NE	7	3.1		0	0			0	0		
Sandy Hook, N. J.			30.45	773.4	45	7.2	64	SW	2	0.9			10ks		S	0	0		
San Diego, Cal.			30.32	770.1	44	6.7	48	Calm	0	0		0	8ks			0	0		
San Francisco, Cal.			30.39	771.9	46	7.8	84	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.68	754.1	16	— 8.9	66	SE	12	5.4			10n			0.11	2.8	Light snow	
Savannah, Georgia			30.29	760.4	56	13.3	93	NW	6	2.7			10n			0.03	0.8	Light rain	
Shreveport, La.			29.65	753.1	73	22.8	76	S	17	7.6			10s			0	0	Threatening	
Springfield, Mass.			30.52	775.2	39	3.9	71	N	8	3.6		5ck	0	N		0	0		
St. Louis, Mo.			29.84	757.9	65	18.3	73	SW	16	7.2			10n			0.10	2.5	Light rain	
St. Marks, Fla.			30.24	768.1	61	16.1	81	E	10	4.5		0	5cs			0	0		
St. Paul, Minn.			29.85	758.2	28	— 2.2	77	NW	16	7.2			10s			0.04	1.0		
St. Paul's Island, Alaska			30.19	766.8	25	— 3.9	62	ENE	11	4.9		10c	k			0.01	0.3		
Squan Beach, N. J.			30.46	773.7	40	4.4	82	SE	4	1.8			10s			0	0		
Toledo, Ohio			30.06	763.5	60	15.6	65	SE	12	5.4		5c	0	SW		0	0		
Tybee Island, Ga.			30.29	769.4	57	13.9	100	NW	4	1.8			10s			0	0	Threatening	
Vicksburg, Miss.			30.05	763.3	67	19.4	84	S	8	3.6			10s			0.14	3.5		
Virginia City, Mon.			29.93	760.2	8	—13.3	78	SE	1	0.4		0	0			0	0		
Washington, D. C.			30.44	773.2	51	10.6	56	SE	4	1.8			10s			0	0		
Wilmington, N. C.			30.56	776.2	58	14.4	81	NE	6	2.7			10s			0.04	1.0		
Wood's Hole, Mass.			30.50	774.7	44	6.7	75	NE	3	1.3		2c	0	NW		0	0		
Wytheville, Va.			30.18	766.8	48	8.9	83	NE	2	0.9			Haze			0	0	Hazy	
Yankton, D. T.			30.15	765.8	26	— 3.3	75	NW	28	12.5			10s		NW	0.08	2.0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.07	763.8	80	26.7		E	5	2.2		2k	2ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.94	760.5	73	22.8		E					10n			5.00	127.0	Rain	L. V. Bigard.
Havana, Cuba, W. I.			29.90	759.5	73	22.8	95	E	3.0	1.6		2k	0	E		0.89	22.6		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	76	24.4		Calm	0	0		1k	0	S		0	0		James Gall.
St. Thomas, St. T., W. I.	30.23	767.8			75	23.9		N	8	3.6		8ck	8k	N		0.01	0.3	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	74	23.3	76	N	10.8	4.8		0	2s	N		0	0		Robert Mason.
St. Georges, Bermudas			30.26	768.6	62	16.7	61	NE	12	5.4		1s	8k			0.265	6.7		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	66	18.9		NE			1	0	5ks			0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	62	16.7	78	Calm	0	0		10n	4ks			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.97	761.2	11.0	—11.7	80	W	6	2.7		4k	0	W		0.25	6.3		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	61	16.1		SE	2	0.9		2c	2k	SE		0.5	12.7		C. Partridge.
St. John's, Newfoundland			30.42	772.7	24	— 4.4	87	NE				Haze	Haze			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.06	763.5	75.2	24.0	77	E			2	0	2ks			0.020	0.75		Leon M. Acuña.
Elyria, Ohio.			30.14	765.5	53	11.7	73	S	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.97	761.2			34	1.1		NW					10n			0.33	8.4	Light rain	G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 1, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	766.8	61.9	16.6		E			3		0			0	0		Charnot.
Algiers			30.12	765.1	56.1	13.4	73	NE			4		0			Blank	Blank		Peter.
La Calle			30.13	765.4															Kuntz.
Tunis			30.15	765.7	57.7	14.3	65	N			3		8			0.138	3.5		Jacques.
Sfax			30.14	765.5															Chauvey.
Salda			30.17	766.2	61.0	16.1		SE			5		7			0.276	7.0	Rain	Grosjean.
Tebessa			30.14	765.6	56.5	13.6		WNW			2		2			0	0		Colin.
Geriville			30.16	766.0	55.4	13.0		SE			4		7			0.315	8.0	Rain	Bernadach.
Laghouat			30.14	765.6	50.9	10.5	46	NE			3		10			0	0		Poinsignon.
Biskra			30.15	765.8	63.0	17.2		NE			5		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.12	765.1	52.3	11.3	51	NE			2		9			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.06	763.5	32.5	0.3	96	W			3		10			0.041	1.05		I. R. Observatory.
Eperies			29.99	761.8	39.6	4.2	62	W			2		10			0	0	Snow	Julius Mikolik.
Gratz			30.09	764.3	53.6	12.0	53	NE			2		8			0	0		Andreas Rospini.
Hermannstadt			29.98	761.6	33.8	1.0	96	NNE			1		10			0.132	3.35	Snow	Prof. Reissenberger.
Kremsmünster			30.22	767.6	41.0	5.5	93	W			3					0.244	6.2		Prof. C. Wagner.
Lemberg			29.91	759.8	36.7	2.6	66	W			4		6			0.244	6.2	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.04	763.2	43.2	6.2	48	NW			3		8			0.173	4.20		Habzsuda Daniel.
Pola			30.15	765.8	55.8	13.2	50	SSE			2		6ks			0	0		I. R. Hydrographic Of'ce
Szegedin			30.04	763.1	47.7	8.7	55	SW			2		8			0	0		Karl Stancel.
Trieste			30.15	765.9	50.7	10.4	64	W			1					0	0		Prof. V. Farolfi.
Vienna			30.09	764.2	50.2	10.1	58	WNW			2		7			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	30.26	768.6			51.8	11.0	55	NNE			1		9	N	NNW	0.002	0.05		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.48	774.2	51.1	10.6		WNW	11	4.9			7			0	0		William Boswell.
Annanhill																			
Ardrossan			30.56	776.2	49.	9.4		W			2		8						William McNeil.
Armagh Observatory			30.64	778.2	48.2	9.0		SW	5	2.2			10						S. Call, for Dr. Robinson.
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.61	777.5	47.8	8.8		WNW			2		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.65	778.5	49.3	9.6		SE			1		9						J. Dreyer, for L'd Rosse.
Bradford			30.51	774.9	51.9	11.1		W			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.54	775.7	63.5	17.5		N			0–5		10						H. Todd.
Cape Town, (Cape Colony)			29.68	779.3	61.4	16.3		NW			4		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.69	777.5			61.3	16.3	93	N	17	7.6			7						Th Staff, for E. J. Stone.
Cardington			30.56	776.2	55.0	12.8		N					8						John McLaren.
Carlisle			30.57	776.5	49.8	9.9		W					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.54	775.7	48.7	9.3		NE					10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.92	760.0	86.5	30.3		SE			1		5						Sgt. W. F. Hopkins
Dartmoor			30.64	778.2	50.0	10.0		NE			1		6						R. E. Power.
Donaghadee			30.61	777.5	50	10.0		SSW			1		10						J. Mac Gowan, Jr.
Dover			30.55	776.0	51	10.6		NE			2		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.58	776.7	48.1	8.9		NW	1.4	0.6			10						Thomas Mackereth.
Falmouth Observatory			30.58	776.7	52.4	11.3		SSE	4	1.8			9					Fog	The Staff.
Fort Napier, (Natal)			29.71	754.6	80.4	26.9		NW			5		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.59	777.0	51	10.6		N			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.98	761.5	57.5	14.2		E			7		5						Sergt. E. G. Baker.
Glasgow Observatory			30.54	775.7	49.0	9.4		WNW			3		10						James Gray.
Great Yarmouth			30.52	775.2	50	10.0		N			3		8					Mist	G. T. Watson.
Greenwich Royal Obs.			30.55	776.0	51.4	10.8		ENE			1		0						The Staff, for G. B. Airy.
Guernsey			30.55	776.0	50.5	10.3		NE			1		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.50	774.7	50.6	10.3		NW					9						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.55	776.0	26.0	— 3.3		S			1		10						Corp'l J. Y. Thompson.
Helston			30.53	775.4	57	10.9		WNW			4		2						Dr. W. B. Moyle.
Holyhead			30.62	777.0	48	8.9		NNE			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.55	776.0	51.0	10.0		N	8	3.6			10					Drizzling	The Staff.
Kingstown			30.65	778.5	49	9.4		NE			1		8						George Mitchell.
Lampeter																			
Leicester Museum			30.58	776.7	52.0	11.1		Calm			0		9					Mist	William J. Harrison
Llandudno			30.62	777.7	48.1	8.9		N			1		10						Dr. James Nicol.
Malta, (Mediterranean)			29.97	761.2	59.5	15.3		NW			1		2k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.46	773.7	53	11.7		W			1		4						William D. Penny.
Nassau, (Bahamas)			30.19	766.8	76.0	24.4		NE			4		6						Surg.-Maj. J. Jameson.
North Shields			30.56	776.2	50	10.0		NNW			5		8						John Wm. Irvine.
Nottingham			30.60	777.2	54.4	12.4		NNW			1		10ck		NW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.57	776.5	50.0	10.0		NW			2		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.53	775.4	53	11.7		NE			1		10						J. Lucas, for R. Main.
Plymouth			30.56	776.2	55.5	13.1		S			2		10					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.64	778.2	53	11.7		SE			4		5						W. Kennedy.
Saint Ann's Head			30.59	777.0	52	11.1		N			2		0						John C. Walker.
Saint Helier, (Jersey)			30.55	776.0	53	11.7		NE			3		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.39	771.9	46.1	7.8		W	27	12.1			10					Drizzling	Rev. C. Clouston
Scarborough			30.53	775.4	46.7	8.2		N			2		9						F. Shaw.
Scutari, (Turkey)			29.90	749.3	50.0	10.0		NNE			2		9						Sergt. W. H. Lyne.
Sheffield			30.53	775.4	52.1	11.2		NW			1		8						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.57	776.5	48.2	9.0		W			2		10			0	0	Rain	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.52	775.2	53.5	11.9		NNW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.59	777.0	46.0	7.8		N			1		10						The Staff.
Stornoway, Lews C. (Hebr.)			30.42	772.7	52	11.1		WSW			4		10						John Smith.
Strathfield Turgiss			30.56	776.2	54.0	12.2		NE			1		10						Rev Charles H. Griffith
Streatley Vicarage			30.57	776.5	54.1	12.3		NNE			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.28	769.1	48	8.9		WNW			6		10						William Lawrence.
Taunton College																			
Thurso			30.42	772.7	51	10.6		SW			3		8						John Trotter.
Truro, Royal Institution			30.52	775.2	57	13.9		N			4		4						W Newcombe.
Valencia Observatory			30.63	778.0	51.5	10.8		SSE	4	1.8			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.55	776.0	51.1	10.6		NNE			1		10						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.05	763.2	48.2	9.0	72	NW			2		5						
Fanöe			30.20	767.1	44.2	6.8	88	NW			6		10						
Godthaab, (Greenland)			29.87	758.7	21.7	— 5.7		S			4		10						
Stykkisholm, (Iceland)			29.61	752.2	29.8	— 1.2	82	W			9		10						
Thorshavn, (Faröe)			30.10	764.5	47.7	8.7	92	WSW			8		5						
Vestervig			30.10	764.6	44.2	6.8	98	NW			6		4						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.03	762.7	58.6	14.8	84						0						Normal School.
Alençon																			Normal School.
Amiens			30.61?	778.3?	51.1	10.6	84	ENE			2		2		ENE	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.53	775.4	48.7	9.3	56	ENE			3		10		ENE	0	0		Normal School.
Besançon			30.37	771.4	52.7	11.5	58	NE			6		8			0	0		Normal School.
Bourges			30.41	772.3	50.0	10.0	64	NE			6		8		NE	0	0		Normal School.
Brest			30.48	774.1	53.1	11.7	48	NE			3		5		NE	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.44	773.2	48.2	9.0		NW			5		8		NW	0	0		Normal School.
Chaumont			30.39	772.0	50.7	10.4		NNE			6		1c		NNE	0	0		Normal School.
Le Mans			30.53	775.4	47.8	8.8	61	NNE			2		5		N	0	0		Normal School.
Mirecourt			30.32	770.3	49.3	9.6	44	NE			1		8		NE	0	0		Normal School.
Orleans																			National Observatory.
Paris			30.48	774.2	50.0	10.0		NE			2		10		NE	0	0		Normal School.
Parthenay			30.48	774.1	48.0	8.9	96	NE			6		5		NW	0	0		Normal School.
La Roche sur Yon			30.43	772.9	53.6	12.0	57	NE			4		8		WSW	0	0		Normal School.
Rouen			30.50	774.8	50.5	10.3	72	NW			3		10		N	0	0		Normal School.
Saint Lo																			Normal School.
Villefranche																			

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)					43.5	6.4	96	E	15.0	6.7			7		ENE	0	0		Père Pascall.
Mont-Louis	24.93	633.2			50.0	10.0	42	NE	8.1	3.6			10kn		NNE	0	0		—. Faignère.
Montsouris (near Paris)			30.47	773.9	58.3	14.6	50	ENE	5.0	2.5			2		W	0	0		Marié Davy.
Perpignan	30.08	764.0			51.8	11.0	41	NNE			1		10			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.47	773.9															E. Renou.
Saint Pierre, (Martinique)					52.0	11.0	43	ENE			3		8		ENE	0	0		C. Marquet.
Tours			30.47	774.0	50.7	19.4	48	NE			3		9			0	0		Dr. A. Bérigny.
Versailles, (near Paris)			30.03	762.8	53.6	12.0	62	SSE	16.3	7.3			0			0	0		H. Le Lec, S. J.
Zi-Ka-Wei, (near Shanghai)			29.75	755.7															

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.23	767.7	45.5	7.5	73	NW			3		10			0.016	0.4		Prof. Hoh.
Berlin			30.19	766.9	46.6	8.1	76	W			4		10			0.032	0.8		Prof. Arndt.
Breslau			30.10	764.6	39.4	4.1	100	NW			9		10			0	0	Rain	Dr. P. Neugebauer.
Carlsruhe			30.37	771.3	47.3	8.5	80	NW			1		10			0.012	0.3		A. Senz.
Cassel			30.28	769.0	51.8	11.0	68	NW			4		6			0	0		Dr. H. Möhl.
Cologne			30.46	773.6	49.5	9.7	76	NW			3		9			0	0		Dr. Garthe.
Emden			30.45	773.4	42.8	6.0	94	NW			3		10			0	0		Prof. Prestel.
Frankfort on the Main			30.43	772.9	53.6	12.0	52	N			2		8			0	0		Physical Society.
Friedrichshafen			30.36	771.2	43.7	6.5	93	W					10			0.067	1.7		M. Wilhelm.
Hamburg			30.28	769.0	44.8	7.1	80	NW			6		10			0.059	0.5		W. Reinert.
Kiel			30.23	767.8	49.8	9.9	66	NW			5		10			0	0		Prof. G. Karsten.
Königsberg			29.98	761.4	36.5	2.5	57	NW			4		7			0.043	0.1	Snow	Prof. E. Luther.
Köslin			30.52?	775.3?	38.0	2.2		NW			2		8			0.327	8.3		Dr. T gert.
Leipsic			30.26	768.6	41.5	5.3	87	NW			2		10			0.051	1.3	Rainy	Prof. Bruhns.
Münster			30.35	771.0	51.1	10.6	90	NW			2		10			0	0		Prof. E. Heis.
Posen			30.07	763.8	37.8	3.2	100	NW			4		10			0.185	4.7		Dr. Magener.
Strassburg, (in Alsace)			30.37	771.4	50.4	10.2	63	NE					10			0.008	0.2		Hartwig and Tülk.
Stuttgart			30.35	771.0	46.0	7.8	83	NW					10			0.024	0.6		Mr. Würth.
Thorn			30.01	762.2	41.9	5.5	58	NE			5		10			0	0		Dr. Rosenbalg.
Treves, (Trier)			30.36	771.1	50.9	10.5	57	NE			7		10			0	0		Prof. Flesch.
Wustrow			30.14	765.6	40.5	4.7	88	SE			2		6			0.024	0.6		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.15	765.8	57.6	14.2	38	ESE			4		1			0	0		
Mondovi			30.15	765.8	54.0	12.2	29	N			2		0			0	0		
Genoa			30.16	766.1	59.0	15.0	45	SW	3.8	1.7			0			0	0		
Pavia			30.14	765.5	57.7	14.3	36	W			4		1	W		0	0		
Verona			30.09	764.3	64.2	17.9	23	E			1		1	E		0	0		
Padua			30.11	764.7	57.7	14.3	40	SW	6.3	2.8			2	NNW		0	0		
Parma																			
Bologna			30.18	766.6	58.3	14.6	28	NNW			2		3	W		0	0		
Livorno			30.15	765.8	56.3	13.5	45	NW	7.4	3.3			2			0	0		
Urbino			30.16	766.1	47.3	8.5	68	NE			2		3			0	0		
Ancona			30.12	765.1	52.9	11.6	67	NW			2		0			0	0		
Siena			30.13	765.2	56.3	13.5	24	ENE	5.1	2.3			3	NE		0	0		
Rome			30.07	763.6	61.9	16.6	34	WSW	4.3	1.9			3			0	0		
Naples, O.U.			30.10	764.6	61.2	16.2	30	NE			6		2	ENE		0	0		
Lecce			29.98	761.5	53.8	12.1	51	NNW	10.9	8.9			3			0	0		
Cosenza			30.04	762.9	54.1	11.7	68	NE			8		6	NE		0	0		
Catania, (Sicily)			30.01	762.2	54.7	12.6	70	SE			4		2	NE		0	0		
Lipposto																			
Palermo			29.99	761.8	55.2	12.9	60	N			4		9	NNE		0.012	0.3		
Sub-Series.																			
Naples, S. R.	29.53	750.1			57.6	14.2	95	NE			8		6			0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.74	775.5	48.6	9.2		N			2								
Groningen			30.34	770.7	43.7	6.5		NNW			4								
Helder			30.44	773.1	43.5	6.4		NW			4								
Utrecht			30.42	772.6	49.3	9.6		NNW			4		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.21	767.3	45.7	7.6	91	Calm	0.0	0.0			10			0.252	6.4		
Christiania			30.00	762.1	44.1	6.7	67	SW	1.3	0.6			2			0	0	Haze	
Tromsö			30.03	762.8	31.3	— 0.4	96	Calm			0		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.70	754.3			63.3	17.4	32	ENE	23.7	10.6			5						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.95	760.6	37.2	2.9	64	N	7	3			10						Astronomical Obs.
Wilna			29.84	757.8	33.6	0.9	80	NW	4	2			10						Astronomical Obs.
Dorpat			29.80	756.8	31.5	— 0.3	68	NNW	9	4			10						Physical Cabinet.
St. Petersburg			29.70	754.3	31.8	— 0.1	85	N	7	3			10					Snow	Central Physical Obs.
Kieff			29.86	758.4	38.5	3.6	67	W	7	3			8						Physical Cabinet.
Nikolaiev			29.95	760.8	37.4	3.0	73	S	4	2			8						
Kertch			29.94	760.5	45.5	7.5	77	W	4	2			9						Lagorio.
Moscow			29.87	758.8	34.3	1.3	78	SSW	8	3.5			10						Meteorological Obs.
Lugan			29.84	757.9	35.1	1.7	71	SW	4	2			10						Meteorological Obs.
Archangel			29.95	760.7	28.8	— 1.8	84	NW	4	2			10						Ogorodnikof.
Tiflis			29.99	761.8	57.6	14.2	42	S	8	3.5			1						Physical Obs.
Astrakhan			30.24	768.0	36.3	2.4	79	SE	8	3.5			10						Sebastianof.
Kasan			30.06	763.5	32.2	0.1	74	SW	4	2			4						Physical Cabinet.
Orenburg			30.16	766.0	31.6	— 0.2	96	Calm	0	0			0						Tschernischef.
Ekaterinburg			30.12	765.1	35.6	2.0	57	SW	20	9			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.06	763.4	23.9	— 4.5	72	W	4	2			4						Meteorological Obs.
Yeniseisk			29.48	748.7	33.4	0.8	82	E	8	3.5			10					Snow	arks.
Irkutsk																			Usolzef.
Oorga			29.76	755.8	28.8	— 1.8	100	Calm	0	0			0						Mossin.
Peking, (China)			29.56	750.9	44.6	7.0	70	Calm	0	0			0						Physical Observatory
Nertchinsk			29.47	748.5	29.3	— 1.5	54	Calm	0	0			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.11	764.9	57.0	13.9	32	E	12.8	5.7		1	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.4	36.3	2.4	59	NW			2		6			0	0		
Hernosand			30.03	762.7	36.0	2.2	51	N			2		2			0	0		
Stockholm			29.95	760.7	34.2	1.2	51	NNW			3		6			0	0		
Wisby			30.00	761.9	34.2	1.2	78	N			1		4			0	0		
Sub-Series.																			
Upsala			30.00	761.9	32.0	0.0	68	NNW			4		4	NNE	NNE				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.83	732.3			49.3	9.6	44	NNE			4		3			0	0		The Observatory.
Zurich	28.64	727.5			47.7	8.7	72	N			1		8			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +8.0mm.; Thermometer, —0°.3 C.; Relative Humidity, —14 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.88	759.0	61.3	16.3	71	W			2		5						
Constantinople			29.92	760.0	44.8	7.1	73	N	14.7	6.5			10		NE	0.165	4.2	Rain	
Fao, (Persian Gulf)			30.00	762.0	71.6	22.0		S			4		0						
Salonica			29.88	759.0	57.0	13.9		NW			1		2						
Valona			29.88	758.9	57.2	14.0		NW			3		2						
Varna			29.96	761.0	46.4	8.0		NE			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.20	767.1	43	6.1		S	1	0.4			4s		SW	0	0		
Cape Roziere, Quebec			30.33	770.4	23	— 5.0	93	SW	28	12.5		8k	8ks	SW	SW	0	0		Threatening
Chatham, N. B.			30.44	770.2	30	— 1.1	75	S	10	4.5		8c	0	SW		0	0		
Charlottetown, P. E. Island			30.55	776.[illegible]	22	— 5.6	93	SE	11	4.9			10s			0	0		
Father Point, Quebec			30.26	768.6	25	— 3.9	91	SW	24	10.7			10n			0.02	0.8		Light rain
Fort Garry, Manitoba			30.14	765.5	12	—16.1	96	SW	1	0.4		0	0			0	0		
Halifax, N. S.			30.49	774.4	26	— 3.3	91	Calm	0	0			8n			0	0		
Kingston, Ontario			30.19	766.8	42	5.6	92	S	6	2.7		5c	0	SW		0	0		
Montreal, Quebec			30.19	766.8	38	3.3	76	S	21	9.4		2k	2ks	W		0	0		
Ottawa, Ontario			30.15	765.8	36	2.2	69	E	2	0.9			10n			0	0		Threatening
Parry Sound, Ontario			29.96	761.0	46	7.8	84	E	8	3.6		2k	2ks	SW	SW	0	0		
Port Dover, Ontario			30.06	763.5	44	6.7	84	S	8	3.6		4k	0	W		0	0		
Port Stanley, Ontario			30.01	762.2	43	6.1	93	E	14	6.2			10n		SW	0	0		
Quebec, Quebec			30.24	768.1	34	1.1	79	Calm	0	0			10n			0	0		
Saugeen, Ontario			29.89	759.2	48	8.9	89	S	8	3.6			10s			0	0		Light rain
Stayner			29.98	761.5	42	5.6	74	SE	4	1.8			4ks		S	0	0		
Sydney, C. B.			30.57	776.5	20	— 6.7	66	N	3	1.3		1c	0	N		0	0		
Toronto, Ontario			30.07	763.8	42	5.6	81	E	3	1.3			10n		SW	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.35	770.9	40	4.4	91	S	12	5.4			10s			0	0		
Alpena, Mich.			29.77	756.1	34	1.1	90	Calm	0	0			Fog			0.04	2.0	Fog	
Atlantic City, N. J.			30.41	772.4	44	6.7	91	Calm	0	0		10cs	0	SW		0	0		
Augusta, Ga.			30.33	770.4	62	16.7	88	SE	2	0.9		5cs	2s	E		0.01	0.3		
Baltimore, Md.			30.34	770.6	52	11.1	78	Calm	0	0		5ck	5s	W		0	0		
Barnegat, N. J.			30.41	772.4	45	7.2	85	SE	2	0.9			10s			0	0		
Benton, Montana			30.00	762.0	40	4.4	56	SW	20	8.9		0	0			0	0		
Bismarck, Dakota			30.05	763.3	20	— 6.7	54	NW	3	1.3		0	2s			0	0		
Boston, Mass.			30.48	774.2	37.5	3.1	76	SE	6	2.7			10s			0	0		
Breckenridge, Minn.			30.06	763.5	25	— 3.9	89	NW	8	3.6			10s			0	0		
Buffalo, N. Y.			30.03	762.7	55	12.8	68	S	16	7.2		5ck	5s	SW		0	0		
Burlington, Vt.			30.26	768.6	40	4.4	64	S	16	7.2		0	2s			0	0		
Cairo, Ill.			30.25	768.3	40	4.4	64	W	8	3.6		2c	0	W		0.91	23.1		
Cape Hatteras, N. C.			30.42	772.7	61	16.1	70	SE	14	6.3		2k	0	SE		0	0		
Cape Henry, Va.			30.43	772.9	66	18.9	59	S	10	4.5		0	Haze			0	0		
Cape May, N. J.			30.40	772.1	44	6.7	92	SE	8	3.6			10s			0	0		
Charleston, S. C.			30.35	770.9	64	17.8	88	E	4	1.8		2c	Sm'e			0	0		
Cheyenne, W. T.			30.01	762.2	12	—11.1	79	NW	16	7.2		0	0			0	0		
Chicago, Ill.			29.83	757.7	43	6.1	67	SW	20	8.9		10ks	0	SW		0.16	4.1		
Cincinnati, Ohio			30.00	762.0	63	17.2	72	S	11	4.9			10s			0	0		
Cleveland, Ohio			29.93	76 .2	62.2	16.8	66	SE	15	6.7			10s		SW	0	0	Threatening	
Colorado Springs, Col.			30.05	763.3	20	— 6.7	56	W	4	1.8		0	0			0	0		
Corsicana, Texas			30.48	774.2	35	1.7	70	NW	5	2.2		2c	0			0	0		
Davenport, Iowa			29.81	757.2	35	1.7	70	SW	28	12.5			10s		S	0.19	4.8		
Denver, Col.			30.14	765.5	23	— 5.0	73	W	11	4.9		0	0			0	0		
Detroit, Mich.			29.83	757.7	61	16.1	60	S	16	7.2			10s			Blank	Blank	Threatening	
Dodge City, Kansas			29.71	754.6	38	3.3	81	N	16	7.2		5k	0	N		0	0		
Dubuque, Iowa			29.73	755.1	34	1.1	79	SW	18	8.0			10s			0.16	4.1		
Duluth, Minn.			29.86	758.4	25	— 3.9	88	NE	12	5.4			10n			0.30	7.6	Light snow.	
Eastport, Me.			30.50	774.7	34	1.1	79	S	9	4.0			10s		SW	0	0		
Erie, Penn.			29.99	761.7	58	14.4	69	SE	28	12.5			10ks			0	0		
Escanaba, Mich.			29.72	754.9	29	— 1.7	89	NE	14	6.3			10n			0.84	21.3	Light rain	
Fort Gibson, I. T.			30.38	771.6	35	1.7	80	W	4	1.8		0	0			0.06	1.5		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.21	767.3	25	— 3.9	75	N	10	4.5		0	5s			0	0		
Galveston, Texas			30.33	770.1	49	9.4	64	N	44	19.7		5ck	0	SW		0.30	7.6		
Grand Haven, Mich.			29.82	757.4	41	5.0	87	SW	18	8.0			10s			0.40	10.2		
Indianapolis, Ind.			30.00	762.0	50	10.0	74	SW	8	3.6			10n		SW	0.14	3.5	Threatening	
Indianola, Texas			30.39	771.9	46	7.8	54	N	42	18.8		8ck	2s	SW		0	0		
Jacksonville, Fla.			30.27	768.8	67	19.4	90	NE	4	1.8		0	0			0	0		
Keokuk, Iowa			29.92	760.0	35	1.7	61	W	28	12.5			10ks			0.05	1.3		
Key West, Fla.			30.18	766.6	75.9	24.4	65	E	15	6.7		5ck	2ks	E		0	0		
Kittyhawk, N. C.			30.44	773.2	52	11.1	86	SE	4	1.8		Haze	0			0	0		
Knoxville, Tenn.			30.19	766.8	59	15.0	81	SW	4	1.8			10cs			0	0		
La Crosse, Wis.			29.61	752.1	38	3.3	100	S	12	5.4			10n			0.52	13.2	Heavy snow	
Leavenworth, Kan.			30.21	767.3	28	— 2.2	88	NW	8	3.6		0	2s			0.48	12.2		
Lexington, Ky.			30.05	763.3	60	15.6	76	S	34	15.2			10n			0	0	Light rain	
Long Branch, N. J.			30.42	772.7	40	4.4	91	SE	3	1.3			10ks		SW	0	0		
Louisville, Ky.			30.00	762.0	61	16.1	82	S	12	5.4			10n			0.08	2.0	Light rain	
Lynchburg, Va.			30.35	770.9	60	15.6	71	S	2	0.9		10k	0	SW		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.80	756.9	28	— 2.2	88	N	16	7.2			10n			0.59	15.0	Hail	
Memphis, Tenn.			30.31	769.9	44	6.7	59	NW	8	3.6		5c	Haze	SW		1.76	44.7		
Milwaukee, Wisconsin			29.77	756.7	37	2.8	71	SW	20	8.9			10ks			0.48	12.2		
Mobile, Ala.			30.19	766.8	66	18.9	94	Calm	0	0			10n			1.24	31.5	Heavy rain	
Montgomery, Ala.			30.24	768.1	61	16.1	85	SE	6	2.7		10cs	Haze	SW		0	0		
Morgantown, W. Virginia			30.13	765.3	62	16.7	66	SE	5	2.2		10cs	Haze	SW		0	0		
Mt. Washington, N. H.			30.32	770.1	32	0.0	100	NW	40	17.9			Fog			0	0		
Nashville, Tenn.			30.15	765.8	55	12.8	87	NW	14	6.3			10n			0.30	7.6	Light rain	
New Haven, Conn.			30.47	773.9	41	5.0	82	E	4	1.8			10s			0	0		
New London, Conn.			30.50	774.7	38.5	3.6	86	SE	7	3.1			10s			0	0		
New Orleans, La.			30.20	767.1	61	16.1	77	N	15	6.7			10n			0.86	21.8	Light rain	
Newport, R. I.																			
New York, N. Y.			30.42	772.7	41	5.0	82	E	8	3.6			Fog			0	0	Fog	
Norfolk, Va.			30.42	772.7	58.5	14.7	79	S	5	2.2		0	0			0	0		
North Platte, Neb.			30.00	762.0	19	— 7.2	69	W	6	2.7		0	2s			0	0		
Omaha, Neb.			30.09	764.3	28	— 2.2	94	NW	20	8.9		2c	5s			0.22	5.6	Clearing	
Oswego, N. Y.			30.18	766.6	48	8.9	74	SSE	8	3.6		6c	6cs	NW		0	0		
Peck's Beach			30.42	772.7	44	6.7	100	S	4	1.8			10s			0	0		
Pembina, D. T.			30.13	765.3	14	—10.0	73	N	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.40	772.1	46	7.8	81	E	5	2.2			10s			0	0		
Pike's Peak, C. T.			29.63	752.6	18	—27.8	100	SW	36	16.1			5s			0.06	1.5		
Pittsburgh, Penn.			30.12	765.0	56	13.3	74	Calm	0	0		Haze	Sm'e			0	0		
Port Huron, Mich.			29.86	758.4	61	16.1	60	S	18	8.0			10s			0	0	Threatening	
Portland, Maine			30.49	774.4	37	12.8	89	S	10	4.5			10s			0	0		
Portland, Or.			30.24	768.1	52	11.1	86	S	16	7.2			0			0.76	19.3	Light rain	
Punta Rassa, Fla.			30.24	768.1	67	19.4	84	NE	5	2.2		1cs	0	SE		0	0		
Rochester, N. Y.			30.07	763.8	57	13.9	69	S	8	3.6		5c	2s	SW		0	0		
Salt Lake City, Utah			30.34	770.6	31	— 0.6	68	S	4	1.8			10s			0	0		
Sandy Hook, N. J.			30.40	772.1	41	5.0	95	SE	8	3.6			10ks		S	0	0		
San Diego, Cal.			30.35	770.9	45	7.2	25	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.41	772.4	48	8.9	85	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.86	758.4	13	—10.6	53	N	4	1.8		0	0			0.12	3.0		
Savannah, Georgia			30.32	770.1	62	16.7	94	E	4	1.8		5k	Fog	SE		0.04	1.0		
Shreveport, La.			30.43	772.9	40	4.4	56	NW	12	5.4		2k	0	SW		0.53	38.9		
Springfield, Mass.			30.47	773.9	38	3.3	71	S	4	1.8			10s			0	0		
St. Louis, Mo.			30.14	765.5	37	2.8	53	W	16	7.2		5k	0	NW		0.94	23.9		
St. Marks, Fla.			30.4	768.1	65	18.3	90	E	12	5.4		5c	0			0	0		
St. Paul, Minn.			29.70	754.4	22	— 5.6	100	N	20	8.9			10n			0.42	10.7	Light snow	
St. Paul's Island, Alaska			30.23	767.8	34	1.1	30	SW	32	14.3		10ck	1k	SW		0.05	1.3		
Squan Beach, N. J.			30.43	772.9	42	5.6	91	SE	2	0.9			10s		W	0	0		
Toledo, Ohio			29.87	758.7	64	17.8	62	S	21	9.4			10n			0	0	Light rain	
Tybee Island, Ga.			30.34	770.6	63	17.2	100	NE	4	1.8			10ks			0.08	2.0		
Vicksburg, Miss.			30.38	771.6	48	8.9	62	NW	14	6.3		0	2s			3.26	82.8		
Virginia City, Mon.			29.87	758.7	22	— 5.6	72	SE	4	1.8		Haze	2s			0	0		
Washington, D. C.			30.36	771.1	52	11.1	86	Calm	0	0		8s	Sm'e	S		0	0		
Wilmington, N. C.			30.40	772.1	64	17.8	73	E	4	1.8		8k	Haze	SW		0	0		
Wood's Hole, Mass.			30.50	774.7	37	2.8	70	SE	12	5.4			10s			0	0		
Wytheville, Va.			30.08	764.0	56	13.3	74	S	8	3.6		8k	0	S		0	0		
Yankton, D. T.			30.12	765.0	29	— 1.7	74	NW	16	7.2			10s		NW	0.12	3.0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	78	25.6		NE	4	1.8		5ck	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	72	22.2		NE				5c	5k	NE		0	0	Fog	L. V. Bigard.
Havana, Cuba, W. I.			29.93	760.2	71	21.7	81	SE	5	2.2		5c	2n	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	74	23.3		NE	2	0.9		8cs	2s	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.25	768.3			76	24.4		NNE	9	4.0		1c	1k	NE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.91	759.7	73	22.8	76	NE	6	2.7			10n		NE	Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.34	770.6	57.5	14.2	58	NNE	16	7.2		0	10k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.12	765.0	66	18.9	68	NE			2	0	0			1.40	35.6		E. P. Church.
Makawao, Maui, S. I.			30.04	763.0	61.5	16.4	83	Calm	0	0		2c	5n	N		0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.71	754.6	23	— 5.0	73	W	12	6.4			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	68	20.0		S	2	0.9		2c	8k	SSE		0	0	Fog	C. Partridge.
St. John's, Newfoundland			30.55	776.0	19	— 7.2	84	NE				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.09	764.2	77.7	25.4	63	E			3	0	3k			0	0		Leon M. Acuña.
Ellyria, Ohio			29.95	760.7	61	16.1	44	S	16	7.2			10s		NE	0	0		H. M. Redington.
Indianola, Iowa	29.08	738.6			29	— 1.7		NW					10n			0.12	3.0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 2, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.96	761.0	59.9	15.5		E			5		6			0	0		Charnot.
Algiers			30.01	762.2	59.0	15.0	74	NE			4		8			Blank	Blank		Peter.
La Calle			30.10	764.6															Kuntz.
Tunis			30.15	765.7	62.6	17.0	61	ENE			4		4			0	0		Jacques.
Sfax			30.18	766.6															Chauvey.
Saïda			30.00	762.1	46.6	8.1		ESE			4		6			0.315	8.0		Grosjean.
Tebessa			30.12	765.0	54.1	12.3		WNW			6		8			0.079	2.0	Rain	Colin.
Geriville			30.01	762.3	59.2	15.1		SE			4		7			0.039	1.0	Rain	Bernadach.
Laghouat			30.03	762.8	41.5	5.3	97	NE			4		10			0.512	13.0	Heavy rain	Poinsigeon.
Biskra			30.08	764.1	50.4	10.2		E			5		10			0.158	4.0	Rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.5	60.1	15.6	31	SW			1		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.11	764.9	35.8	2.0	91	W			2		8			0.217	5.5		I. R. Observatory.
Eperies			30.04	762.9	36.7	2.7	57	N			2		4ks			0.158	4.00	Snow	Julius Mikolik.
Gratz			30.06	763.5	53.4	11.9	59	NW			5		5			0	0		Andreas Rospini.
Hermannstadt			29.89	759.3	36.3	2.4	65	NNE			3		7			0.124	3.15		Prof. Reissenberger.
Kremsmünster			30.25	768.3	42.1	5.6	69	WNW			3					0	0		Prof. C. Wagner.
Lemberg			29.96	761.0	31.6	— 0.2	89	NE			2		9			0.031	0.8	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.04	763.0	39.2	4.0	55	N			3		4			0	0		Habzsuda Daniel.
Pola			30.10	764.6	55.8	13.2	68	SSE			2		3ks			0	0		I. R. Hydrographic Of'ce
Szegedin			30.00	761.9	42.3	5.7	77	E			2		10			0.024	0.60		Karl Stancel.
Trieste			30.11	764.7	51.8	11.0	65	W			1		1			0	0		Prof. V. Farolfi.
Vienna			30.13	765.4	46.0	7.8	58	NW			3		10			0.055	1.4		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.18	766.6			52.5	11.4	57	N			1		10		N	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5	55.0	12.8		WSW	15	6.7			9			0	0		William Boswell.
Annanhill																			
Ardrossan			30.29	769.4	47.5	8.6		WS			2		8						William McNeil.
Armagh Observatory			30.35	770.9	49.9	9.9		SW	17	7.6			10					Squally	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.38	771.6	48.0	8.9		W			5		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.41	772.4	51.4	10.8		WSW			1-2		10						J. Dreyer, for L'd Rosse.
Bradford			30.31	769.9	47.9	8.8		W			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.41	772.4	51.0	10.6		SW			1		10						H. Todd.
Cape Town, (Cape Colony)			30.03	762.7	64.8	18.2		SE			4		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.06	763.5			69.5	20.8	52	S	17	7.6			6						The Staff, for E. J. Stone
Cardington			30.41	772.4	51.0	10.6		NW					8						John McLaren.
Carlisle			30.23	767.8	46.7	8.2		W					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.40	772.1	49.7	9.8		NW			1		10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.90	759.4	85.2	29.6		SE			2		3						Sgt. W. F. Hopkins
Dartmoor			30.55	776.0	46.5	8.1		SW			1		4						R. E. Power.
Donaghadee			30.31	769.9	50	10.0		N			4		6						J. Mac Gowan, Jr.
Dover			30.43	772.9	49	9.4		WNW			2		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.37	771.4	49.0	9.4		WNW	7.2	3.2			10						Thomas Mackereth.
Falmouth Observatory			30.48	774.2	50.9	10.5		W	7	3.1			9						The Staff.
Fort Napier, (Natal)			29.53	750.0	83.6	28.7		NW			2		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.10	764.5	51	10.6		NW			2		6						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.96	761.0	59.5	15.3		E			7		10						Sergt. E. G. Baker.
Glasgow Observatory			30.23	767.8	47.7	8.7		W			3		10						James Gray.
Great Yarmouth			30.38	771.6	48	8.9		W			2		8					Mist	G. T. Watson.
Greenwich Royal Obs.			30.40	772.1	52.5	11.4		WNW			1		9						The Staff, for G. B. Airy.
Guernsey			30.45	773.4	51.5	10.8		NNW			1		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.31	769.9	47.8	8.8		WNW					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.20	767.1	37.4	3.0		SW			2		10					Haze	Corp'l J. Y. Thompson.
Helston			30.45	773.4	54	12.2		NW			4		2						Dr. W. B. Moyle.
Holyhead			30.38	771.6	48	8.9		SW			3		4						John Tilston.
Hull Park																			
Kew Observatory			30.43	772.9	49.5	9.7		WNW	12	5.4			3						The Staff.
Kingstown			30.42	772.7	50	10.0		W			2		9						George Mitchell.
Lampeter																			
Leicester Museum			30.42	772.7	49.4	9.7		SW			1		10						William J. Harrison
Llandudno			30.40	772.1	49.0	9.4		W			1		9						Dr. James Nicol.
Malta, (Mediterranean)			30.13	765.3	59.8	15.5		SE			2		8k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.07	763.8	52	11.1		WSW			1		10					Drizzling	William D. Penny.
Nassau, (Bahamas)			30.16	766.1	73.2	22.9		E			3		8						Surg.-Maj. J. Jameson.
North Shields			30.29	769.4	54	12.2		WSW			6		7						John Wm. Irvine.
Nottingham			30.40	772.1	52.7	11.5		WSW			2		10kd		NNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.40	772.1	49.9	9.9		SSW			3		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.39	771.9	49	9.4		NNW			2		3						J. Lucas, for R. Main.
Plymouth			30.46	773.7	53	11.7		Calm			0		0					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.47	773.9	49	9.4		SW			3		10						W. Kennedy.
Saint Ann's Head			30.32	770.1	47	8.3		WNW			2		3						John C. Walker.
Saint Helier, (Jersey)			30.46	773.7	54.5	12.5		W			3		2						A. P. Amy.
Sandwick Manse (Orkneys)			29.96	761.0	46.1	7.8		SW	15	6.7			10					Rain	Rev. C. Clouston
Scarborough			30.28	769.1	53.3	11.8		WSW			3		7						F. Shaw.
Scutari, (Turkey)			29.89	759.2	50.4	10.2		NNE			1		6						Sergt. W. H. Lyne.
Sheffield			30.36	771.1	50.1	10.1		W			2		10						W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.29	769.4	50.4	10.2		WSW			5		7			0.086	2.2		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.37	771.4	49.2	9.6		WSW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.36	771.1	47.5	8.6		W			4		10					Haze	The Staff.
Stornoway, Lews C. (Hebr.)			30.01	762.2	48	8.9		SW			5		10					Rain	John Smith.
Strathfield Turgiss			30.41	772.4	53.5	11.9		W			1-2		2ck						Rev Charles H. Griffith
Streatley Vicarage			30.45	773.4	52.8	11.6		NW			2		4						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.93	760 2	47	8.3		SSW			6		10					Rain	William Lawrence.
Taunton College																			
Thurso			29.98	761.5	51	10.6		SW			3		8					Showery	John Trotter.
Truro, Royal Institution			30.42	772.7	53	11.7		NW			6		5						W Newcombe.
Valencia Observatory			30.43	772.9	51.0	10.6		S	21	9.4			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.44	773.2	50.5	10.3		SW			1		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.04	763.1	41.0	5.0	90	SSW			2		10					Fog	
Fanöe			30.14	765.5	41.5	5.3	96	WNW			4		10					Fog	
Godthaab, (Greenland)			29.69	754.1	20.7	-6.3		W			2		10					Snow	
Stykkisholm, (Iceland)			29.69	754.1	30.4	-0.9	98	S			2		8						
Thorshavn, (Faröe)			29.76	756.0	38.8	3.8	87	WSW			4		5						
Vestervig			30.05	763.2	41.5	5.3	97	WNW			6		10					Fog	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.08	763.9	60.8	16.0	64						1s						Normal School.
Alençon																			Normal School.
Amiens			30.57	776.5?	54.0	12.2	81	WNW			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.43	773.0	51.3	10.7	46	N			1		8		N	0	0		Normal School.
Besançon			30.32	770.1	51.8	11.0	61	NE			6		5		NE	0	0		Normal School.
Bourges			30.34	770.5	53.6	12.0	61	NNE			8		2		NNE	0	0		Normal School.
Brest			30.38	771.6	62.1	16.7	49	SSW			1		0			0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.35	771.0	50.0	10.0		NW			6		0			0	0		Normal School.
Chaumont			30.38	771.6	50.9	10.5		N			1		1ck		N	0	0		Normal School.
Le Mans			30.51	775.0	51.4	10.8	41	N			3		2		N	0	0		Normal School.
Mirecourt			30.32	770.0	46.0	7.8	48	NNE			1		8		NE	0	0		Normal School.
Orleans																			Normal School.
Paris			30.41	772.5	50.4	10.2		N			2		10			0	0	Mist	National Observatory.
Parthenay			30.43	772.9	47.8	8.9	59	E			2		0			0	0		Normal School.
La Roche sur Yon			30.35	770.8	54.3	12.4	54	ENE			2		5		SW	0	0		Normal School.
Rouen			30.43	772.8	52.5	11.4	48	NE			2		5		N	0	0		Normal School.
Saint Lo																			Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.92	632.9			43.0	6.1	62	NNW	15.0	6.7			4		ENE	0	0		—. Falguère.
Montsouris (near Paris)			30.41	772.3	50.2	10.1	49	NNW	6.3	2.8			10k		NNW	0	0		Marié Davy.
Perpignan	30.06	763.5			59.7	15.4	51	ENE	5.6	2.5			3		W	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.10	772.2	52.7	11.5	44	N			1		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.38	771.7	55.0	12.8	41	NE			2		1		ENE	0	0		C. Marquet.
Versailles, (near Paris)			29.97	761.2	52.2	11.2	34	NE			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.96	760.9	57.2	14.0	81	E	8.1	3.6			0			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			30.26	768.5	45.5	7.5	72	NW			5		9			0	0		Prof. Hoh.
Berlin			30.21	767.2	45.0	7.2	77	NW			2		10			0	0		Prof. Arndt.
Breslau			30.19	766.7	39.0	3.9	79	N			2		10			0.555	14.1		Dr. P. Neugebauer.
Carlsruhe			30.34	770.5	49.3	9.6	61	NNE			1		10			0.012	0.3		A. Senz.
Cassel			30.25	768.3	46.6	8.1	78	NW			2		8			0	0		Dr. H. Möhl.
Cologne			30.35	770.8	46.2	7.9	86	NW			4		10			0.047	1.2		Dr. Garthe.
Emden			30.34	770.5	46.6	8.1	77	WNW			2		10			0	0		Prof. Prestel.
Frankfort on the Main			30.41	772.4	50.0	10.0	67	NW			2		7			0	0		Physical Society.
Friedrichshafen			30.32	770.2	46.4	8.0	79	E					9			0	0		M. Wilhelm.
Hamburg			30.22	767.5	43.3	6.3	83	WNW			4		10			0.008	0.2		W. Reinert.
Kiel			30.16	766.1	48.0	8.9	78	NW			5		10			0	0		Prof. G. Karsten.
Königsberg			30.08	763.9	34.0	1.1	65	NW			2		8			0	0		Prof. E. Luther.
Köslin			30.37	771.4	37.2	2.9		NW			4		6			0	0		Dr. T gert.
Leipsic			30.24	768.0	46.0	7.8	69	NW			2		9			0.047	1.2		Prof. Bruhns.
Münster			30.30	769.6	47.5	8.6	80	NW			2		10			0.268	6.8		Prof. E. Heis.
Posen			30.15	765.9	41.7	5.4	57	NW			2		2			0.008	0.2		Dr. Magener.
Strassburg, (in Alsace)			30.35	770.9	49.6	9.8	45	NE					10			0	0		Hartwig and Tülk.
Stuttgart			30.33	770.3	46.0	7.8	68	N					10			0	0		Mr. Würth.
Thorn			30.11	764.7	38.7	3.7	67	NW			4		5			0.004	0.1	Snow	Dr. H senbalg.
Treves, (Trier)			30.32	770.2	47.1	8.4	61	NE			3		10			0.008	0.2		Prof. Klesch.
Wustrow			30.15	765.9	39.9	4.4	86	W			4		10			0.032	0.8		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.08	763.9	60.1	15.6	37	ESE			4		0			0	0		
Mondovi			30.05	763.3	58.5	14.7	40	ENE			2		0			0	0		
Genoa			30.15	765.8	58.6	14.8	37	SW	5.6	2.5			0			0	0		
Pavia			30.07	763.6	61.1	16.2	26	SW			4		0			0	0		
Verona			30.03	762.8	63.5	17.5	38	E			1		0			0	0		
Padua			30.07	763.8	56.5	13.6	45	WNW	1.3	0.6			5	WNW		0	0		
Parma																			
Bologna			30.11	764.9	62.1	16.7	27	W			2		2	N		0	0		
Livorno			30.16	766.0	58.3	14.6	37	SW	1.8	0.8			1			0	0		
Urbino			30.09	764.4	52.3	11.3	50	S			2		4			0	0		
Ancona			30.13	765.4	54.3	12.4	46	ENE			2		0			0	0		
Siena			30.11	764.7	59.9	15.5	26	NW	0	0			3	W		0	0		
Rome			30.17	766.4	60.4	15.8	44	W	4.9	2.2			1			0	0		
Naples, O. U			30.16	766.1	62.8	17.1	35	SW			2		0			0	0		
Lecce			30.14	765.5	55.9	13.3	59	NE	16.8	7.5			3			0	0		
Cosenza			30.17	766.2	57.0	13.9	25	NW			1		0			0	0		
Catania, (Sicily)			30.20	767.1	55.9	13.3	74	ESE			4		0			0	0		
Riposto																			
Palermo			30.19	766.9	56.1	13.4	55	NE			1		1			0	0		
SUB-SERIES.																			
Naples, S. R.	29.65	753.0			62.2	16.8	31	W			4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.42	772.7	49.3	9.6		N			2								
Groningen			30.25	768.3	47.3	8.5		NW			4								
Helder			30.34	770.5	43.3	6.3		W			4								
Utrecht			30.33	770.3	46.9	8.3		WNW			3		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.98	761.6	45.3	7.4	74	Calm	0	0			10			0.315	8.0		
Christiania			29.88	759.0	49.3	9.6	56	WSW	4.9	2.2			3			0	0		
Tromsö			29.66	753.3	30.9	− 0.6	76	SE			7		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.71	754.6			61.9	16.6	23	NE	27.3	12.2			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			30.07	763.8	33.8	1.0	61	NNW	7	3			8						Astronomical Obs.
Wilna			29.93	760.3	34.0	1.1	63	NNW	8	3.5			9						Astronomical Obs.
Dorpat			29.85	758.1	30.2	− 1.0	59	NNW	9	4			2						Physical Cabinet.
St. Petersburg			29.72	754.5	33.6	0.9	85	NNE	2	1			10					Snow	Central Physical Obs.
Kieff			29.85	758.3	35.1	1.7	73	WSW	4	2			8						Physical Cabinet.
Nikolaiev			29.89	759.1	39.2	4.0	58	NW	4	2			7						
Kertch			29.80	756.9	34.9	1.6	89	N	13	6			10						Lagorio.
Moscow			29.84	757.9	38.5	3.6	46	SSW	8	3.5			3						Meteorological Obs.
Lugan			29.72	754.8	35.7	2.6	82	E	8	3.5			10						Meteorological Obs.
Archangel			30.01	762.3	35.6	2.0	67	ENE	20	9			9						Ogorodnikof.
Tiflis			29.85	758.1	48.9	9.4	75	S	8	3.5			9						Physical Obs.
Astrakhan			30.00	762.0	43.5	6.4	73	E	8	3.5			5						Sebastianof.
Kasan			30.08	764.1	35.2	1.8	77	S	13	6			10						Physical Cabinet.
Orenburg			30.37	771.3	35.2	1.8	82	E	4	2			10						Tschernischef.
Ekaterinburg			30.30	769.7	44.2	6.8	54	SW	4	2			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.47	774.0	25.3	− 3.7	80	SW	4	2			6						Meteorological Obs.
Yeniseisk			30.02	761.5	30.7	− 0.7	77	W	10	4.5			10						Varks.
Irkutsk																			Usolzef.
Oorga			29.67	753.7	32.0	0.0	100	E	4	2			10					Snow	Mossin.
Peking, (China)			29.88	759.0	54.3	12.4	34	Calm	0	0			3						Physical Observatory
Nertchinsk			29.64	752.8	35.4	1.9	65	SW	8	3.5			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdukof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.08	764.2	56.7	13.7	33	NE	15.7	7.0		0	5			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.93	760.3	32.7	0.4	92	SW *			2		10			0	0		
Hernosand			29.88	758.9	30.6	— 0.8	77	E			2		10			0	0		
Stockholm			29.91	759.6	34.2	1.2	75	WSW			2		10			0.11	2.7		
Wisby			29.99	761.8	32.7	0.4	100	E			2		6			0	0		
Sub-Series.																			
Upsala			29.95	760.7	32.0	0.0	88	SSW			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.80	731.5			49.0	9.8	51	NNE			4		2			0	0		The Observatory.
Zurich	28.62	727.0			45.9	7.7	70	NE			1		10			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +7.3mm.; Thermometer, —0°.3 C.; Relative Humidity, —7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.65	753.1	53.2	11.8	75	E			1		5						
Constantinople			29.80	759.3	45.9	7.7	66	NNE	7	3			10		N	0.025	5.2		
Fao, (Persian Gulf)			29.87	758.8	72.0	22.2		SE			3		0						
Salonica			29.90	759.4	56.8	13.8		N			3		0						
Valona			30.02	762.6	55.4	13.0		N			3		0						
Varna			29.92	760.0	44.6	7.0		SW			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.13	765.3	35	1.7		SW	7	3.1			10s		SW	0.13	3.3	Light rain	
Cape Roziere, Quebec			30.01	762.2	31	— 0.6	98	S	15	6.7		3k	Fog	S		0	0		
Chatham, N. B.			30.04	763.0	37	2.8	90	SW	4	1.8			10s		SW	0.03	0.8		
Charlottetown, P. E. Island			30.10	766.1	34	1.1	87	S	8	3.6			10			0.02	0.5		
Father Point, Quebec			29.84	757.9	38	3.3	93	S	16	7.2		8ok	Haze	S		0.05	1.3		
Fort Garry, Manitoba			29.56	750.8	30	— 1.1	89	S	12	5.4		2k	2ks	W	W	0	0		
Halifax, N. S.			30.17	766.3	36	2.2	90	S	5	2.2			8n			0	0		
Kingston, Ontario			30.14	765.5	34	1.1	95	SW	3	1.3			10n		SW	0.47	11.9	Light rain	
Montreal, Quebec			30.00	762.0	40	4.4	89	W	25	11.2		Haze	2s	SW		0.11	2.8		
Ottawa, Ontario			30.02	762.5	37	2.8	74	S	2	0.9			10n		S	0.17	4.3	Threatening	
Parry Sound, Ontario			30.03	762.7	33	0.0	75	SW	16	7.2		2k	2ks	W	W	0.48	12.2		
Port Dover, Ontario			30.14	765.5	33	0.6	89	S	11	4.9		4k	0	NW		0.05	1.3		
Port Stanley, Ontario			30.12	765.0	35	1.7	68	W	10	4.5			10n		SW	0.23	5.8		
Quebec, Quebec			29.95	760.7	42	5.6	100	Calm	0	0			10n			0.20	5.1	Heavy rain	
Saugeen, Ontario			30.05	763.3	32	0.0	95	SW	15	6.7			10n		SW	0.24	6.1		
Stayner			30.06	763.5	35	1.7	68	NW	10	4.5			10n		NW	0	0		
Sydney, C. B.			30.25	768.6	33	0.0	88	SW	8	3.6			10n			0	0		
Toronto, Ontario			30.12	765.0	38	3.3	59	W	7	3.1			10ks		SW	0.16	4.1		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.09	764.3	47	8.3	85	W	2	0.9			10ks			0	0		
Alpena, Mich.			30.02	762.5	31	— 0.6	89	W	14	6.2		10k	0	W		0.02	0.5		
Atlantic City, N. J.			30.15	765.8	46	7.8	91	SW	16	7.2		10cs	0			0	0		
Augusta, Ga.			30.06	763.5	66	18.9	89	SE	8	3.6			10s			0.01	0.3		
Baltimore, Md.			30.08	764.0	58	14.4	81	Calm	0	0			10s			0	0		
Barnegat, N. J.			30.15	765.8	49	9.4	85	SE	14	6.2		10cs	0	SE		0	0		
Benton, Montana			29.76	755.9	41	5.0	64	SW	20	8.9			10s			0	0		
Bismarck, Dakota			29.42	747.3	35	1.7	61	SW	6	2.7		5k	0	SW		0.04	1.0		
Boston, Mass.			30.09	764.3	50	10.0	86	SW	6	2.7			10ks			0	0		
Breckenridge, Minn.			29.76	755.9	31	— 0.6	89	SE	8	3.6			10s			0	0		
Buffalo, N. Y.			30.13	765.3	33	0.6	89	SW	12	5.4			10ks			0.21	5.3		
Burlington, Vt.			30.05	763.3	47	8.3	70	S	4	1.8			10s			0	0		
Cairo, Ill.			30.25	768.3	40	4.4	72	Calm	0	0		0	0			0	0		
Cape Hatteras, N. C.			30.21	767.3	63	17.2	83	[illegible]	13	5.8		2c	2ks	SW		0	0		
Cape Henry, Va.			30.19	766.8	59	15.0	82	S	8	3.6		8c	Haze			0	0		
Cape May, N. J.			30.16	766.1	46	7.8	95	S	20	8.9			10s		W	0	0		
Charleston, S. C.			30.15	765.8	64	17.8	100	SE	12	5.4			10s			0.11	2.8		
Cheyenne, W. T.			29.85	758.2	39	3.9	48	W	44	19.7		0	2s			0	0		
Chicago, Ill.			30.11	764.8	37	2.8	53	SW	6	2.7		0	0			0	0		
Cincinnati, Ohio			30.20	767.1	41	5.0	82	S	4	1.8			10s			1.00	25.4		
Cleveland, Ohio			30.12	765.0	37.6	3.1	78	S	10	4.5			10ks		SW	0.08	2.0		
Colorado Springs, Col.			29.86	758.9	50	10.0	20	SE	28	12.5		5c	0	W		0	0		
Corsicana, Texas			30.30	769.6	37	2.8	80	SW	5	2.2		0	0			0	0		
Davenport, Iowa			30.14	765.5	32	0.0	79	W	1	0.4		2c	0			0	0		
Denver, Col.			29.94	760.5	44	6.7	30	S	4	1.8			5ks			0	0		
Detroit, Mich.			30.12	765.0	35	1.7	70	SW	7	3.1			10s			0	0		
Dodge City, Kansas			29.75	755.6	40	4.4	64	SW	12	5.4		0	0			0	0		
Dubuque, Iowa			30.11	764.8	31	— 0.6	79	Calm	0	0			2s			0.09	2.3		
Duluth, Minn.			29.95	760.7	15	— 9.4	83	Calm	0	0		0	0			0.10	2.5		
Eastport, Me.			30.09	764.3	37	2.8	90	S	7	3.1			Fog		S	0	0	Dense fog	
Erie, Penn.			30.13	765.3	36	2.2	100	S	16	7.2			10s			0.35	8.9		
Escanaba, Mich.			30.02	762.5	28	— 2.2	77	SW	7	3.1		0	0			0.08	2.0		
Fort Gibson, I. T.			30.18	766.6	40	4.4	56	SE	9	4.0		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.67	753.6	35	1.7	63	SE	2	0.9		5c	2s			0	0		
Galveston, Texas			30.34	770.6	49	9.4	48	NE	14	6.2		0	0			0.06	1.5		
Grand Haven, Mich.			30.10	764.5	35	1.7	65	W	7	3.1			10s			0	0		
Indianapolis, Ind.			30.18	766.6	37	2.8	71	W	2	0.9			Sm'e			0	0		
Indianola, Texas			30.38	771.6	52	11.1	53	NE	16	7.2		0	0			0	0		
Jacksonville, Fla.			30.13	765.3	68	20.0	90	SE	12	5.4		5ck	0	SW		0	0		
Keokuk, Iowa			30.12	765.0	37	2.8	71	W	2	0.9		0	0			0	0		
Key West, Fla.			30.12	765.0	76.8	24.9	69	SE	13	5.8		Haze	Haze			0	0		
Kittyhawk, N. C.			30.20	767.1	63	17.2	78	SW	16	7.2		8c	0	SW		0	0		
Knoxville, Tenn.			30.12	765.0	42	5.6	91	NW	14	6.2			10n			0.94	23.9	Light rain	
La Crosse, Wis.			30.07	763.8	31	— 0.6	79	S	8	3.6		0	0			0	0		
Leavenworth, Kan.			30.09	764.3	34	1.1	69	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.35	770.9	31	— 0.6	89	N	10	4.5			10n			1.00	25.4	Light snow.	
Long Branch, N. J.			30.14	765.5	44	6.7	84	S	18	8.0			10ks		SW	0	0		
Louisville, Ky.			30.21	767.3	42	5.6	74	NW	2	0.9			10s			0	0		
Lynchburg, Va.			30.03	762.7	62	16.7	86	S	8	3.6			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.98	761.5	27	— 2.8	64	SW	4	1.8		0	0			0.12	3.0		
Memphis, Tenn.			30.28	769.1	42	5.6	74	Calm	0	0		0	Sm'e			0	0		
Milwaukee, Wisconsin			30.12	765.0	34	1.1	79	SW	5	2.2		0	Haze			0	0		
Mobile, Ala.			30.18	766.6	47	8.3	85	N	6	2.7			10s			2.09	55.6		
Montgomery, Ala.			30.17	766.3	48	8.9	92	NW	8	3.6			10n			0.10	2.5	Light rain	
Morgantown, W. Virginia			30.11	764.8	43	6.1	91	N	4	1.8			10n			0.31	7.9	Light rain	
Mt. Washington, N. H.			30.17	766.3	40	4.4	100	NW	44	19.7			Fog			0	0		
Nashville, Tenn.			30.24	768.1	42	5.6	83	N	1	0.4			10s			0.57	14.5		
New Haven, Conn.			30.12	765.0	49	9.4	71	S	5	2.2			10s			0	0		
New London, Conn.			30.17	766.3	45	7.2	92	S	2	0.9			10ks		SW	0	0		
New Orleans, La.			30.27	768.8	49.5	9.6	54	N	12	5.4			10ks		N	1.13	28.7		
Newport, R. I.																			
New York, N. Y.			30.12	765.0	52	11.1	78	S	3	1.3		5k	Fog	W		0	0		
Norfolk, Va.			30.18	766.6	61	16.1	77	S	8	3.6		5c	2s	SW		0	0		
North Platte, Neb.			29.59	751.6	31	— 0.6	67	Calm	0	0		0	8s		N	0	0		
Omaha, Neb.			30.00	762.0	27	— 2.8	88	S	6	2.7		0	Haze			0	0		
Oswego, N. Y.			30.15	765.8	39	3.9	87	WSW	10	4.5			10n			0.27	6.9	Light rain	
Peck's Beach			30.18	766.6	46	7.8	92	SW	16	7.2			10s			0	0		
Pembina, D. T.			29.55	750.6	30	— 1.1	89	SW	20	8.9		8c	0			0	0		
Philadelphia, Penn.			30.12	765.0	60	15.6	70	SW	15	6.7		2ck	2s	W	W	0	0		
Pike's Peak, C. T.			29.82	757.4	5	—15.0	100	SW	36	16.1		10k	0	W		0	0		
Pittsburgh, Penn.			30.14	765.5	40	4.4	82	NW	2	0.9			10n			0.32	8.1	Light rain	
Port Huron, Mich.			30.10	764.5	35	1.7	61	W	10	4.5			10s			0.03	0.8		
Portland, Maine			30.05	763.3	42	5.6	83	S	5	2.2		8ck	Fog	SW		0	0		
Portland, Or.			30.29	769.4	42	5.6	83	NW	4	1.8			10s			0.77	19.6		
Punta Rassa, Fla.			30.16	766.1	71.1	21.7	82	E	12	5.4		1cs	Sm'e			0	0		
Rochester, N. Y.			30.18	766.6	38	3.3	81	W	12	5.4			10n			0.34	8.6	Light rain	
Salt Lake City, Utah			30.09	764.3	45	7.2	38	S	6	2.7			10s			0	0		
Sandy Hook, N. J.			30.10	764.5	54	12.2	86	SW	23	10.3			10ks		SW	0	0		
San Diego, Cal.			30.24	768.1	52	11.1	48	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.48	773.4	51	10.6	93	Calm	0	0			Fog			0	0	Fog	
Santa Fe, N. M.			29.83	757.7	32	0.0	50	N	15	6.7		0	0			0	0		
Savannah, Georgia			30.12	765.0	67	19.4	90	SE	6	2.7		8ck	0	S		0.07	1.8		
Shreveport, La.			30.31	769.9	40	4.4	91	Calm	0	0		0	Sm'e			0	0		
Springfield, Mass.			30.10	764.5	46	7.8	93	S	4	1.8			10ks		W	0	0		
St. Louis, Mo.			30.22	767.6	36	2.2	61	SW	8	3.6		0	0			0	0		
St. Marks, Fla.			30.09	764.3	68	20.0	90	S	10	4.5		Haze	5ks			0	0		
St. Paul, Minn.			29.95	760.7	12	—11.1	80	E	7	3.1		0	0			0.22	5.6		
St. Paul's Island, Alaska			29.55	750.6	36	2.2	90	S	37	16.5		1ks	10s			0.45	11.4		
Squan Beach, N. J.			30.13	765.3	45	7.2	91	S	8	3.6			8s		S	0	0		
Toledo, Ohio			30.16	766.3	38	3.3	63	SW	9	4.0			10s			0.05	1.3		
Tybee Island, Ga.			30.12	765.0	67	19.4	94	S	4	1.8		2c	5k			0.11	2.8		
Vicksburg, Miss.			30.36	771.1	45	7.2	67	N	4	1.8		0	2ks			0.32	8.1		
Virginia City, Mon.			30.09	779.5	32	0.0	79	SW	8	3.6			10s			0	0		
Washington, D. C.			30.09	764.3	61	16.1	83	S	14	6.2			10s		SW	0	0		
Wilmington, N. C.			30.18	766.6	67	19.4	68	S	9	4.0			10s			0	0		
Wood's Hole, Mass.			30.19	766.8	44	6.7	84	SW	9	4.0			10s			0	0		
Wytheville, Va.			29.82	757.4	48	8.9	92	SW	8	3.6			10n			0.04	1.0	Light rain	
Yankton, D. T.			29.90	759.4	35	1.7	61	SW	2	0.9		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.01	762.2	79	26.1		E	3	1.3		2c	2ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.96	761.0	71	21.7		NE				10c	0			0.10	2.5		L. V. Bigard.
Havana, Cuba, W. I.			29.89	759.2	72	22.2	76	E	2.4	1.1		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	74	23.3		Calm	0	0		8cs	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.17	766.3			76	24.4		N	12	5.4			8k			0.11	2.8	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.89	759.2	73	22.8	78	NNE	7.2	3.2		0	2s			0	0		Robert Mason.
St. Georges, Bermudas			30.28	769.1	59.5	15.3	65	NE	16.6	7.5		0	8k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	63	17.2	83	NE			2		10n	S		1.14	28.9	Rain	E. P. Church.
Makawao, Maui, S. I.			29.94	760.5	60	15.6	88	Calm	0	0		0	10n			0.05	1.3		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.66	753.4	10.0	—12.2	90	NE	12	5.4			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.09	764.3	62	16.7	93	N	2.0	0.9		2c	2k	NE		0.15	3.8		C. Partridge.
St. John's, Newfoundland			30.48	774.2	28	— 2.2	76	W				5k	10s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.09	764.2	75.2	24.0	66	NE			5	0	8k			0.171	4.35		Leon M. Acuña.
Ellyria, Ohio.			30.16	766.1	37	2.8	63	SW	6	2.7		0	5s			0.03	0.8		H. M. Redington.
Indianola, Iowa	29.21	741.9			33	0.6		SW				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 3, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.87	758.7	57.9	14.4		NE			5		6			0	0		Charnot.
Algiers			29.89	759.2	59.7	15.4	78	NE			4		7			0.090	2.3		Peter.
La Calle			30.00	762.1															Kuntz.
Tunis			30.05	763.2	59.4	15.2	68	ESE			4		10			0.012	0.3	Rain	Jacques.
Sfax			29.97	761.3															Chauvey.
Sattia			29.77	756.1	52.7	11.5		NNE			2		7			0.591	15.0	Rain	Grosjean.
Tebessa			29.98	761.5	57.4	14.1		NE			5		2			0	0		Colin.
Geriville			29.70	754.3	50.0	10.0		E			4		9			0.039	1.0	Rain	Bernadach.
Laghouat			29.74	755.4	50.9	10.5	80	NE			3		10			0.551	14.0	Heavy rain	Poinsignon.
Biskra			29.93	760.2	72.5	22.5		SE			0		4			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.05	763.3	59.1	15.2	49	SW			3		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.99	761.8	45.1	7.3	90	W			3		10			0.001	0.05		I. R. Observatory.
Eperies			30.00	761.9	41.4	5.5	74	SE			4		10			Blank	Blank	Rain	Julius Mikolik.
Gratz			30.06	763.4	52.7	11.5	51	S			2.5		8			0	0		Andreas Rospini.
Hermannstadt			30.07	763.7	43.5	6.4	40	N			1		8			0	0		Prof. Reissenberger.
Kremsmünster			30.09	764.0	47.1	8.4	58	N			2					0	0		Prof. C. Wagner.
Lemberg			29.91	759.7	36.3	2.4	80	W			4		10			0.004	0.12	Snow	Dr. T. Stanecki.
Nytregyhaza			30.08	764.0	42.1	5.6	82	W			3		10			Blank	Blank		Habsauda Daniel.
Pola			30.12	765.0	57.2	14.0	70	SSE			2		1ks			0	0		I. R. Hydrographic Office
Szegedin			30.1[illegible]	764.8	48.2	9.0	68	W			1		10			0	0		Karl Stancek.
Trieste			30.11	764.0	52.5	11.4	69	NW			1		9			0	0		Prof. V. Farolfi.
Vienna			30.07	763.6	48.2	9.0	53	W			2		9			0.024	0.6		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.84	757.8			50.2	10.1	63	W			1		10		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 188.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.38	746.2				SW	25	11.2			5			0.015	0.41		William Boswell.
Annanhill																			
Ardrossan			29.49	749.0	47	8.3		SW			3		8						William McNeil.
Armagh Observatory			29.55	750.6	50.9	10.5		SW	33	14.8			7					Squally	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.73	755.1	49.9	9.9		SW			7		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.72	754.9	51.1	10.6		SSW			2-3		10					Rain	J. Dreyer, for L'd Rosse.
Bradford			29.70	754.4	50.9	10.5		SW			2		9						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.91	759.7	51.0	10.6		SW			3		10						H. Todd.
Cape Town, (Cape Colony)			30.00	762.0	65.8	18.8		SE			5		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.06	763.5			66.0	18.9	60	SSE	26	11.6			5						The Staff, for E. J. Stone.
Cardington			29.90	759.4	52.0	11.1		SW					9						John McLaren.
Carlisle			29.57	756.0	48.1	8.9		SW					10			0.07	1.8	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.00	762.0	50.4	10.2		WSW			4		10					Threatening	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.92	760.1	80.0	26.7		NE			2		4						Sgt. W. F. Hopkins
Dartmoor			30.12	765.0	45.2	7.3		SW			5		10						R. E. Power.
Donaghadee			29.52	749.8	51	10.6		WSW			6		10						J. Mac Gowan, Jr.
Dover			30.02	762.5	47	8.3		WSW			5		6						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.77	756.1	50.5	10.3		SW	8.2	3.7			10						Thomas Mackereth.
Falmouth Observatory			30.08	764.0	51.0	10.6		WSW	29	12.0			10						The Staff.
Fort Napier, (Natal)			29.83	757.7	74.5	23.6		E			1		4						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.23	742.2	52	11.1		NW			1		5					Haze	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.93	760.2	60.0	15.6		E			7		10						Sergt. E. G. Baker.
Glasgow Observatory			29.47	748.5	47.7	8.7		SSW			6		10					Squally	James Gray.
Great Yarmouth			29.83	759.2	49	9.4		S			3		8					Mist	G. T. Watson.
Greenwich Royal Obs.			29.98	761.5	50.3	10.2		WSW			4		10						The Staff, for G. B. Airy.
Guernsey			30.13	765.3	49.5	9.7		SW			2		7					Haze	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.71	754.6	50.8	10.4		WSW					10					Threatening	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.18	766.6	45.3	7.4		S			1		10					Haze	Corp'l J. Y. Thompson.
Helston			30.08	764.0	54	12.2		SW			6		6						Dr. W. B. Moyle.
Holyhead			29.71	754.6	48	8.9		SW			6		4					Drizzling	John Tilston.
Hull Park																			
Kew Observatory			29.98	761.5	49.3	9.6		WSW	18	8.0			10						The Staff.
Kingstown			29.72	754.9	54	12.2		SW			4		10						George Mitchell.
Lampeter																			
Leicester Museum			29.88	758.9	50.1	10.6		SW			2		10						William J. Harrison
Llandudno			29.75	755.6	49.0	9.4		SW			6		10						Dr. James Nicol.
Malta, (Mediterranean)			30.15	765.8	60.0	15.6		SE			1		10k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.74	755.4	55	12.8		SW			5		2						William D. Penny.
Nassau, (Bahamas)			30.05	763.3	74.0	23.3		E			4		7						Surg.-Maj. J. Jameson.
North Shields			29.62	752.3	51	10.6		W			6		9						John Wm. Irvine.
Nottingham			29.85	758.2	51.1	10.6		WSW			5		10kd		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.86	758.4	50.0	10.0		SW			6		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.93	760.2	52	11.1		WSW			3		10						J. Lucas, for R. Main.
Plymouth			30.15	765.8	53	11.7		SW			3		9						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.88	758.9	51	10.6		WSW			5		10						W. Kennedy.
Saint Ann's Head			29.91	759.7	49	9.4		SW			5		10						John C. Walker.
Saint Helier, (Jersey)			30.15	765.8	51.2	10.7		W			3		5						A. P. Amy.
Sandwick Manse (Orkneys)			29.25	742.9	46.0	7.8		SSE	25	11.2			2						Rev. C. Clouston
Scarborough			29.72	754.9	48.6	9.2		SW			4		10						F. Shaw.
Scutari, (Turkey)			30.19	766.8	49.0	9.4		NE			1		5						Sergt. W. H. Lyne.
Sheffield			29.79	756.7	51.6	10.9		SW			4		9						W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.51	749.5	46.3	7.9		SW			7		10			0.380	9.6	Rain	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.92	760.0	57.0	13.9		SSW			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.73	755.1	47.9	8.8		SW			5		10					Haze	The Staff.
Stornoway, Lews C. (Hebr.)			29.19	741.4	51	10.6		SW			5		10					Drizzling	John Smith.
Strathfield Turgiss			29.95	760.7	52.4	11.3		SW			2		10ks						Rev Charles H. Griffith
Streatley Vicarage			30.08	764.0	52.5	11.4		SW			3		6						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.37	746.0	45	7.2		S			2		10						William Lawrence.
Taunton College																			
Thurso			29.22	742.2	50	10.0		SSW			4		6						John Trotter.
Truro. Royal Institution			30.02	762.5	54	12.2		SW			6		10						W Newcombe.
Valencia Observatory			29.82	757.4	51.0	11.1		SSW	34	15.2								Mist	The Staff.
Wick																			
Wisbeach																			
Worthing			30.05	763.3	46.8	8.2		SW			2		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.69	754.2	45.0	7.2	77	W			2		9						
Fanöe			29.74	755.5	39.2	4.0	98	W			4		10					Rain	
Godthaab, (Greenland)			29.34	745.2	22.8	— 5.1		E			2		10						
Stykkisholm, (Iceland)			29.37	745.9	37.0	2.8	86	Calm			0		8						
Thorshavn, (Faröe)			29.45	748.1	33.3	0.7	63	NE			4		8						
Vestervig			29.63	752.6	42.3	5.7	96	SW			4		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.4	63.5	17.5	46					10							Normal School.
Alençon																			Normal School.
Amiens			30.49?	773.7?	50.7	10.4	86	WNW			4		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.14	765.5	52.2	11.2	48	W			3		5		W	0	0		Normal School.
Besançon			30.17	766.3	53.2	11.8	54	S			4		0			0	0		Normal School.
Bourges			30.20	767.0	52.9	11.6	61	NE			3		2		WSW	0	0		Normal School.
Brest			30.11	764.9	54.1	12.3	63	SW			3		10		SW	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			30.28	769.0	54.8	12.8		W			6		0			0	0		Normal School.
Chaumont			30.17	766.3	52.9	11.6		W			1		5		W	0	0		Normal School.
Le Mans			30.21	767.2	53.1	11.7	56	NW			2		0			0	0		Normal School.
Mirecourt			30.08	763.9	52.2	11.2	50	W			1		2		NE	0	0		Normal School.
Orleans																			Normal School.
Paris			30.13	765.3	54.0	12.2		W			1	10	0		E	0	0	Haze	National Observatory.
Parthenay			30.24	768.1	49.6	9.8	28	NE			2		0			0	0		Normal School.
La Roche sur Yon			30.16	766.0	57.9	14.4	47	ENE			1		0			0	0		Normal School.
Rouen			30.12	765.0	52.7	11.5	50	SW			2		2		WSW	0	0		Normal School.
Saint Lo																			Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.89	632.3			45.5	7.5	57	E	18.6	8.3			1		E	0	0		—. Faiguère.
Montsouris (near Paris)			30.12	765.1	56.7	13.7	30	SW	2.7	1.2			2			0	0	Haze	Marié Davy.
Perpignan	29.98	761.5			62.6	17.0	47	NE	5.6	2.5			3			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.12	765.1	57.0	14.4	37	WSW			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.17	766.3	55.8	13.2	43	W			1		0			0	0		C. Marquet.
Versailles, (near Paris)			29.70	754.4	54.7	12.6	49	W			1		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.94	760.5	56.8	13.8	97	ESE	12.1	5.4			0			0	0		H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.09	764.2	47.8	8.8	61	W			3		9			0	0		Prof. Hoh.
Berlin			30.21	767.2	45.0	7.2	77	NW			2		10			0	0		Prof. Arndt.
Breslau			30.01	762.2	41.2	5.1	81	W			5		10			0.008	0.2	Rain	Dr. P. Neugebauer.
Carlsruhe			30.09	764.4	52.5	11.4	50	S			5		9			0	0		A. Senz.
Cassel			29.98	761.4	49.1	9.5	61	SW			2		10			0.071	1.8		Dr. H. Möhl.
Cologne			30.09	764.4	50.0	10.0	85	SW			2		3			0	0		Dr. Garthe.
Emden			29.95	760.8	49.3	9.6	74	SW			2		10			0	0		Prof. Prestel.
Frankfort on the Main			30.14	765.6	55.8	13.2	46	SW			2		5			0	0		Physical Society.
Friedrichshafen			30.13	765.4	46.4	8.0	72	W					3			0	0		M. Wilhelm.
Hamburg			29.91	759.8	47.3	8.5	76	W			4		10			0.079	2.0	Fog	W. Reinert.
Kiel			29.86	758.5	41.4	6.9	87	W			5		0			0	0		Prof. G. Karsten.
Königsberg			29.77	756.2	37.4	3.0	90	W			2		10			0.197	5.0	Snow	Prof. E. Luther.
Köslin			30.04	763.1	39.2	4.0		W			4		10			0.150	3.8		Dr. T gert.
Leipsic			30.03	762.8	45.5	7.5	73	WSW			2		10			0.173	4.4	Rain	Prof. Bruhns.
Münster			29.95	760.7	49.8	9.9	67	NW			2		10			0	0		Prof. E. Heis.
Posen			29.91	759.8	42.3	5.7	85	W			4		10			0.008	0.2		Dr. Magener.
Strassburg, (in Alsace)			30.11	764.9	55.2	12.9	42	W					6			0	0		Hartwig and Tülk.
Stuttgart			30.10	764.6	52.7	11.5	52	NW					8			0	0		Mr. Würth.
Thorn			29.84	757.9	42.1	5.6	83	W			4		10			0.114	2.9		Dr. H senbalg.
Treves, (Trier)			30.03	762.8	53.8	12.1	45	W			7		9			0	0		Prof. Flesch.
Wustrow			29.84	757.9	39.2	4.0	91	SW			4		10			0.016	0.4		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.08	763.9	59.7	15.4	47	S			4		1			0	0		
Mondovi			30.06	763.5	57.2	14.0	52	Var.			2		1			0	0		
Genoa			30.16	766.0	57.4	14.1	64	SW	5.6	2.5			0			0	0		
Pavia			30.08	764.0	60.8	16.0	42	SW			2		0			0	0		
Verona			30.02	762.0	64.0	17.8	34	E			1		0			0	0		
Padua			30.06	763.5	58.3	14.6	48	S	1.8	0.8			0			0	0		
Parma																			
Bologna			30.07	763.8	62.1	16.7	23	ENE			4		2	E		0	0		
Livorno			30.17	766.4	58.8	14.9	61	S	7.4	3.3			2			0	0		
Urbino			30.13	765.4	54.5	12.5	43	SW			4		0			0	0		
Ancona			30.13	765.2	56.5	13.6	37	Calm			0		0			0	0		
Siena			30.11	764.9	60.1	15.6	24	SSE	0	0			0			0	0		
Rome			30.18	766.5	62.2	16.8	40	S	7.4	3.3			1			0	0		
Naples, O.U			30.21	767.4	62.8	17.1	40	SW			2		1			0	0		
Lecce			30.22	767.5	57.6	14.2	44	ENE	4.3	1.9			2			0	0		
Cosenza			30.19	766.9	58.6	14.8	48	N			4		3			0	0		
Catania, (Sicily)			30.24	768.0	57.4	14.1	52	E			4		0			0	0		
Hipposto																			
Palermo			30.10	764.6	58.8	14.9	59	NE			4		3			0	0		
Sub-Series.																			
Naples, S. R.	29.60	754.0			62.6	17.0	47	SW			4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.04	763.0	46.8	8.2		W			4								
Groningen			29.85	758.2	48.7	9.3		WSW			4								
Helder			29.90	759.5	44.8	7.1		SW			4								
Utrecht			29.94	760.4	50.9	10.5		WSW			4		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.51	749.6	43.9	6.6	71	SSW	15.2	6.8			10			0.185	4.7		
Christiania			29.46	748.3	44.6	7.0	71	SSW	3.4	1.5			2			0	0		
Tromsö			29.43	747.4	33.6	0.9	96	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.72	754.8			63.0	17.2	24	NE	24.8	11.1			3						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.85	758.3	40.5	4.7	94	W	7	3			10					Light rain	Astronomical Obs.
Wilna			29.87	758.6	37.2	2.9	66	SE	4	2			10						Astronomical Obs.
Dorpat			29.89	759.3	35.1	1.7	57	SE	4	2			1						Physical Cabinet.
St. Petersburg			29.86	758.5	37.4	3.1	68	SE	4	2			2						Central Physical Obs.
Kieff			30.02	762.5	35.1	1.7	53	NW	4	2			9						Physical Cabinet.
Nikolaiev			29.96	761.0	35.2	1.8	75	NNW	10	4.5			8					Snow	
Kertch			29.98	761.6	40.3	4.6	68	NNW	13	6			4						Lagorio.
Moscow			29.93	760.1	34.0	1.1	81	SSE	8	3.5			10					Snow	Meteorological Obs.
Lugan			29.71	754.5	36.0	2.2	89	NW	10	4.5			10					Snow	Meteorological Obs.
Archangel			30.08	763.9	36.3	2.4	72	Calm	0	0			10						Ogorodnikof.
Tiflis			29.74	755.5	42.8	6.0	75	NW	31	14			10					Rain	Physical Obs.
Astrakhan			29.71	754.7	48.2	9.1	77	Calm	0	0			10					Rain	Sebastianof.
Kasan			30.13	765.4	35.2	1.8	80	SE	13	6			10						Physical Cabinet.
Orenburg			30.17	766.2	37.6	3.1	91	SE	10	4.5			4						Tschernischef.
Ekaterinburg			30.40	772.3	36.0	2.2	58	E	13	6			0						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.72	780.2	28.4	— 2.0	70	Calm	0	0			3						Meteorological Obs.
Yeniseisk			30.40	772.1	27.3	— 2.6	77	NW	10	4.5			10						Yarks.
Irkutsk																			Usolsef.
Oorga			30.28	769.0	18.3	— 7.6	95	NW	13	6			2						Mossin.
Peking, (China)			29.89	759.2	51.6	10.9	74	Calm	0	0			9						Physical Observatory
Nertchinsk			29.84	757.9	31.8	— 0.1	52	N	13	6			4						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.07	763.7	59.2	15.1	37	NE	9.6	4.3		0	4			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.71	754.7	31.3	— 0.4	96	SW			1		6			0	0		
Hernosand			29.62	752.2	30.6	— 0.8	92	S			3		10			0.25	6.4		
Stockholm			29.96	760.9	35.8	2.1	91	ESE			2		10			0.01	0.3		
Wisby			29.65	753.1	38.8	3.8	83	W			2		10			0.09	2.4		
Sub-Series.																			
Upsala			29.59	751.5	34.9	1.6	93	SSE			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.69	728.7			59.4	15.2	37	W			2		0			0	0		The Observatory.
Zurich	28.45	722.5			54.1	12.3	56	W			2		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +15.2mm.; Thermometer, +5°.0 C.; Relative Humidity, —21 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.87	758.6	62.4	16.9	76	WSW			2		5					Rain	
Constantinople			30.21	767.2	43.3	6.3	45	NNE	7.8	3.5			5		NE	0	0		
Fao, (Persian Gulf)			29.92	760.0	71.6	22.0		NW			3		10					Light rain	
Salonica			30.12	765.1	63.0	17.1		W			1		0						
Valona			30.14	765.6	58.5	14.6		NW			2		0						
Varna			30.16	766.0	47.3	8.5		N			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.08	764.0	32	0.0		Calm	0	0			10s			0.49	12.4	Light snow	
Cape Roziere, Quebec			30.20	767.1	32	0.0	96	Calm	0	0		0	5ks		N	0	0		
Chatham, N. B.			30.17	766.3	36	2.2	95	NE	5	2.2			Haze			0.06	1.5	Light rain	
Charlottetown, P. E. Island			30.18	766.6	39	3.9	93	Calm	0	0			10s			0	0		
Father Point, Quebec			29.98	761.5	39	3.9	82	Calm	0	0		Haze	0	S		0.01	0.3		
Fort Garry, Manitoba			29.87	758.7	30	— 1.1	94	NW	14	6.2		2c	5ks	NW	NW	0	0		
Halifax, N. S.			30.12	765.0	40	4.4	95	SE	1	0.4			Fog			0	0	Fog	
Kingston, Ontario			30.09	764.3	32	0.0	95	W	2	0.9			10s			0.30	7.6		
Montreal, Quebec			29.90	759.4	33	0.6	98	Calm	0	0			10n			0.29	7.4	Light rain	
Ottawa, Ontario			29.93	760.2	33	0.6	69	SW	2	0.9			Fog			0.40	10.2	Heavy snow	
Parry Sound, Ontario			30.01	762.2	31	— 0.6	89	S	6	2.7			10n		S	0	0	Light snow	
Port Dover, Ontario			30.07	763.8	30	— 1.1	89	S	5	2.2		2c	0	W		0	0		
Port Stanley, Ontario			30.06	763.5	31	— 0.6	88	SW	6	2.7		0	0			0	0		
Quebec, Quebec			29.95	76 .7	35	1.7	100	NE	14	6.2			10n			0.13	3.3	Light rain	
Saugeen, Ontario			29.99	761.7	32	0.0	95	Calm	0	0			10ks		S	0	0		
Stayner			30.00	762.0	34	1.1	71	Calm	0	0			10n		NW	0	0		
Sydney, C. B.			30.20	767.1	40	4.4	88	S	1	0.4			10n			0	0		
Toronto, Ontario			30.06	763.5	33	0.6	85	Calm	0	0		5c	Haze			0.05	1.3		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.99	761.7	38	3.3	100	W	8	3.6			10n			0.45	11.4	Light rain	
Alpena, Mich.			29.92	760.0	32	0.0	73	Calm	0	0		1c	0			0	0		
Atlantic City, N. J.			30.01	762.2	45	7.2	100	NW	8	3.6			10n		NW	0.39	9.9	Light rain	
Augusta, Ga.			30.05	763.3	49	9.4	85	NW	6	2.7			10s			0.39	9.9		
Baltimore, Md.			30.08	764.0	44	6.7	76	NW	3	1.3			10s		NW	0.86	21.8	Clearing	
Barnegat, N. J.			30.01	762.2	5	7.2	100	W	8	3.6			10n		W	0.31	7.9	Light rain	
Benton, Montana			29.96	761.0	23	— 5.0	86	W	16	7.2			10s			0	0		
Bismarck, Dakota			29.78	756.4	30	— 1.1	60	N	7	3.1		Haze	0			0	0		
Boston, Mass.			29.95	760.7	54	12.2	97	S	17	7.6			10n			0.10	2.5	Light rain	
Breckenridge, Minn.			29.77	756.1	33	0.6	89	NW	6	2.7			10s			0.05	1.3		
Buffalo, N. Y.			30.06	763.5	31	— .6	69	S	8	3.6		2k	0	SW		0.09	2.3		
Burlington, Vt.			29.95	760.7	35	1.7	91	S	4	1.8			10n			0.39	9.9	Light rain	
Cairo, Ill.			30.05	763.3	47	8.3	48	S	12	5.4		8cs	0	W		0	0		
Cape Hatteras, N. C.			29.99	761.7	61	16.1	94	SW	20	8.9			10n		NW	2.37	9.4	Heavy rain	
Cape Henry, Va.			30.04	763.0	49	9.4	93	N	30	13.4			10n			0.93	23.6	Light rain	
Cape May, N. J.			30.05	763.3	43	6.1	91	NW	20	8.9			10n			0.60	15.2	Light rain	
Charleston, S. C.			29.99	761.7	56	13.3	100	NW	8	3.6			10n			0.76	19.3	Light rain	
Cheyenne, W. T.			29.89	759.2	31	— 0.6	69	S	2	0.9		2c	0			0	0		
Chicago, Ill.			29.83	757.7	44	6.7	45	SW	12	5.4			10s			0	0		
Cincinnati, Ohio			30.13	765.3	39	3.9	72	SE	4	1.8		2c	0			0	0		
Cleveland, Ohio			30.02	762.5	36.2	2.3	72	S	11	4.9		0	Sm'e			0	0		
Colorado Springs, Col.			29.91	759.7	38	3.2	54	W	4	1.8		2ck	0	W		0	0		
Corsicana, Texas			30.01	762.2	49	9.4	71	SW	15	6.7		0	0			0	0		
Davenport, Iowa			29.73	755.1	45	7.2	60	SW	12	5.4			10ks		NW	0.02	0.5		
Denver, Col.			29.95	760.7	32	0.0	59	S	3	1.3		5k	0	W		0	0		
Detroit, Mich.			29.98	758.9	35	1.7	70	S	6	2.7		0	Haze			0	0		
Dodge City, Kansas			29.61	752.1	39	3.9	82	S	9	4.0		0	0			0	0		
Dubuque, Iowa			29.72	754.9	40	4.4	82	W	4	1.8			10s			0.06	1.5		
Duluth, Minn.			29.64	752.8	37	2.8	90	Calm	0	0			10s			0	0		
Eastport, Me.			30.10	764.5	41	5.0	92	S	1	0.4			Fog			0.05	1.3	Fog	
Erie, Penn.			30.04	763.0	37	2.8	70	S	12	5.4		2c	2ks	S		0	0		
Escanaba, Mich.			29.83	757.7	31	— 0.6	79	SE	7	3.1		5cs	0	SE		0	0		
Fort Gibson, I. T.			29.94	760.5	49	9.4	57	N	5	2.2		5k	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.90	759.4	34	1.1	79	NW	10	4.5		2c	0	W		0	0		
Galveston, Texas			30.15	765.8	57	13.9	62	S	10	4.5		0	0			0	0		
Grand Haven, Mich.			29.88	758.9	38	3.3	62	SE	10	4.5			10s			0	0		
Indianapolis, Ind.			30.00	762.0	40	4.4	40	SE	10	4.5		8cs	Sm'e			0	0		
Indianola, Texas			30.16	766.1	58	14.4	76	S	8	3.6		0	0			0	0		
Jacksonville, Fla.			30.01	762.2	51	10.6	79	NW	4	1.8			10s			0.24	6.1		
Keokuk, Iowa			29.72	754.6	51	10.6	52	W	7	3.1		0	0			0	0		
Key West, Fla.			30.01	762.2	73.0	22.8	81	NW	23	10.3			10s			0	0		
Kittyhawk, N. C.			30.01	762.2	58	14.4	100	S	1	0.4			10n		S	1.10	27.9	Light rain	
Knoxville, Tenn.			30.16	766.1	34	1.1	90	NE	8	3.6		2k	0			0.29	7.4		
La Crosse, Wis.			29.69	754.1	42	5.6	83	S	6	2.7			Fog			0	0		
Leavenworth, Kan.			29.84	757.9	46	7.8	77	Calm	0	0		0	0			0	0		
Lexington, Ky.			30.15	765.8	35	1.7	74	S	12	5.4		2c	0			0	0		
Long Branch, N. J.			30.00	762.0	47	8.3	92	NW	16	7.2			10n		NW	0.30	7.6	Light rain	
Louisville, Ky.			30.10	764.5	38	3.3	72	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.09	764.3	44	6.7	60	NW	6	2.7			10s			0.75	19.1		
Malone, N. Y.																			
Marquette, Mich.			29.79	756.7	33	0.6	70	SE	4	1.8			8s			0	0		
Memphis, Tenn.			30.13	765.3	47	8.3	56	S	6	2.7		5c	Haze			0	0		
Milwaukee, Wisconsin			29.82	757.4	38	3.3	71	S	8	3.6			10s			0	0		
Mobile, Ala.			30.20	767.1	43	6.1	75	N	4	1.8		0	Fog			0	0		
Montgomery, Ala.			30.20	767.1	41.5	5.3	83	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			30.14	765.5	39	3.9	76	SW	8	3.6			10s			0.88	22.4		
Mt. Washington, N. H.			29.99	761.7	35	1.7	100	SW	67	30.1			Fog			0.35	8.9		
Nashville, Tenn.			30.14	765.5	42	5.6	75	Calm	0	0		0	Fog			0	0		
New Haven, Conn.			29.96	761.0	51	10.6	86	SW	8	3.6			10n			0.45	11.4	Heavy rain	
New London, Conn.			29.99	761.7	48	8.9	96	SW	17	7.6			10s		SW	0.35	8.9	Threatening	
New Orleans, La.			30.26	767.1	50.5	10.3	62	Calm	0	0		0	2s			0	0		
Newport, R. I.																			
New York, N. Y.			30.01	762.2	44	6.7	92	NW	8	3.6			10n			0.32	8.1	Light rain	
Norfolk, Va.			30.06	763.5	48	8.9	81	N	18	8.0			10n		N	0.65	16.5	Light rian	
North Platte, Neb.			29.66	753.4	32	0.0	79	Calm	0	0		0	0			0	0		
Omaha, Neb.			29.85	758.2	39	3.9	82	NW	12	5.4		2c	0	W		0	0		
Oswego, N. Y.			30.08	764.0	33.1	0.6	94	W	4	1.8			10s			0.81	20.6	Threatening	
Peck's Beach			30.04	763.0	44	6.7	100	NW	16	7.2			10n		NW	0.68	17.3	Light rain	
Pembina, D. T.			29.85	758.2	28	— 2.2	88	N	24	10.7		8c	0	N		0.04	1.0		
Philadelphia, Penn.			30.07	763.8	42	5.6	83	N	16	7.2			10n		N	0.40	10.2	Light rain	
Pike's Peak, C. T.			29.80	756.9	10	—12.2	100	SW	12	5.4			10n			0.01	0.3	Light snow	
Pittsburgh, Penn.			30.14	765.5	34	1.1	79	S	4	1.8		10k	0	SW		0.33	8.4		
Port Huron, Mich.			29.98	761.5	34	1.1	79	SW	9	4.0		0	0			0	0		
Portland, Maine			29.97	761.2	44	6.7	81	SW	7	3.1			Fog			0.35	8.9	Light rain	
Portland, Or.			30.20	767.1	40	4.4	82	S	4	1.8			10s			0.04	1.0		
Punta Rassa, Fla.			30.07	763.8	63.8	17.7	88	NE	11	4.9			10n			0.78	19.8	Light rain	
Rochester, N. Y.			30.06	763.5	33	0.6	89	SW	8	3.6		0	5s			0.41	10.4		
Salt Lake City, Utah			29.90	759.4	40	4.4	73	E	4	1.8			10s			0.34	8.6		
Sandy Hook, N. J.			29.98	761.5	42	5.6	100	NW	20	8.9			10n		NW	0.39	9.9	Light rain	
San Diego, Cal.			30.02	762.5	52	11.1	53	NE	4	1.8		0	0			0	0		
San Francisco, Cal.			30.15	765.8	48	8.9	92	W	12	5.4		0	0			0	0		
Santa Fe, N. M.			29.76	755.6	34	1.1	25	SE	4	1.8		0	0			0	0		
Savannah, Georgia			30.02	762.5	50	10.0	77	NW	8	3.6			10ks		NW	0.82	20.8		
Shreveport, La.			30.12	765.0	48	8.9	70	S	4	1.8		0	0			0	0		
Springfield, Mass.			29.93	760.2	49	9.4	100	S	4	1.8			10n			0.35	8.9	Light rain	
St. Louis, Mo.			29.91	759.7	50	10.0	38	SW	17	7.6			10s			0	0		
St. Marks, Fla.			30.12	765.0	46	7.8	77	NW	6	2.7		0	0			0.83	21.1		
St. Paul, Minn.			29.58	751.3	38	3.3	80	SW	4	1.8			10s			0.15	3.8		
St. Paul's Island, Alaska			28.90	734.0	36	2.2	100	SSE	28	12.5		1ks	10s			1.05	26.7		
Squan Beach, N. J.			30.01	762.2	45	7.2	91	NW	5	2.2			10n		NW	0.45	11.4		
Toledo, Ohio			30.03	762.7	40	4.4	56	S	12	5.4		0	0			0	0		
Tybee Island, Ga.			30.02	762.5	50	10.0	93	NW	10	4.5			10s			0.39	9.9		
Vicksburg, Miss.			30.25	768.3	45	7.2	67	S	6	2.7		0	0			0	0		
Virginia City, Mon.			29.47	748.5	33	0.6	69	E	4	1.8		0	5s			0	0		
Washington, D. C.			30.12	765.0	40.5	4.7	83	NW	6	2.7			10s		SW	0.52	13.2		
Wilmington, N. C.			29.95	760.7	60	15.6	94	NE			2		10n			1.05	26.7	Light rain	
Wood's Hole, Mass.			30.05	763.3	48	8.9	85	S	23	12.5			10s			0	0		
Wytheville, Va.			29.94	760.5	35	1.7	52	NW	4	1.8		10k	0	W		0.89	22.6		
Yankton, D. T.			29.90	759.4	36	2.2	80	NW	8	3.6		0	0			0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.04	763.0	78	25.6		NE	6	2.7		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.94	760.5	72	22.2		NE				5k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	77	25.0	85	S	3.6	1		10c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	75	23.9		Calm	0	0		1k	0	NE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.22	767.6			74	23.3		NNE	6	2.7		0	2ks			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	73	22.8	76	W	3.6	1.6		0	0			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.18	766.6	62.0	16.7	72	NE	7.4	3.3			10ks			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	56	13.3	81				2		10n			0.28	7.1	Rainy.	E. P. Church.
Makawao, Maui, S. I.			29.82	757.4	60	15.6	94	Calm	0	0			10n		N	0.93	23.6	Rainy.	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.15	765.8	− 4.0	−20.0	100	NW	20	8.9			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5	66	18.9	93	N	1.0	0.4		2c	2k	NNE		0.29	7.4		C. Partridge.
St. John's, Newfoundland			30.35	770.9	36	2.2	80	SW				Sm'e	Sm'e			0	0		John Delaney.
St. John's, Porto Rico, W. I																			Leon M. Acuña.
Ellyria, Ohio			30.06	763.5	33.5	0.8	84	S	8	3.6		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.92	734.6			40	4.4		NW				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 4, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:58 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:40 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.80	756.8	59.7	15.4		NE			2		6			0.394	10.0	Rain	Charnot.
Algiers			29.82	757.4	61.5	16.4	76	W			4		6			0.122	3.1	Fog	Peter.
La Calle			29.80	756.4															Kuntz.
Tunis			29.89	759.2	66.2	19.0	72	SE			4		6			0.016	0.4		Jacques.
Sfax			29.83	757.6															Chauvey.
Sfidi			29.78	756.5	57.7	14.3		Calm			0		0			0	0		Grosjean.
Tebessa			29.82	757.4	57.4	14.1		S			4		10			0.370	9.4	Rain	Colin.
Geriville			29.76	756.2	52.7	11.5		S			1		2			0	0		Bernadach.
Laghouat			29.78	756.4	59.0	15.0	53	SSW			1		2			0	0		Poinsignon.
Biskra			29.80	757.0	72.5	22.5		NW			2		1			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.97	761.2	64.0	17.8	28	SW			4		5s			0	0		Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.7	51.8	10.8	52	W			2		6			0	0		I. R. Observatory.
Eperies			30.00	762.0	43.0	6.1	56	S			3		10n			0.045	1.15		Julius Mikolik.
Gratz			29.94	760.4	56.3	13.5	55	SSW			2.5		2			0	0		Andreas Rospini.
Hermanstadt			30.04	762.9	47.1	8.4	58	NW			1		10			0.047	1.20		Prof. Reissenberger.
Kremsmünster			29.89	759.1	54.0	12.2	55	NW			1					0	0		Prof. C. Wagner.
Lemberg			29.95	760.6	44.2	6.8	77	W			2		2			0.114	2.9	Snow	Dr. T. Stanecki.
Nyiregyhaza			30.06	763.4	47.1	8.4	84	W			1		2			0	0	Solar corona.	Habzsuda Daniel.
Pola			30.09	764.4	58.0	14.8	74	SSE			3		0ks			0	0		I. R. Hydrographic Office
Szegedin			29.98	761.6	63.7	17.6	46	SW			1		2			0	0		Karl Stancel.
Trieste			30.08	764.0	54.7	12.6	58	NW			1		1			0	0		Prof. V. Farolfi.
Vienna			29.92	759.9	57.6	14.2	51	S			1		7			0	0	Mist	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Lower. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.55	750.6			50.9	10.5	72	WSW			2		10		SW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper, From—	Clouds. Direction. Lower, From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.43	747.5	45.0	7.2		NW	14	6.2			5			0.010	0.25		William Boswell.
Annanhill																			
Ardrossan																			
Armagh Observatory			29.61	752.1	48.9	9.4		WSW	6	2.7									William McNeil.
Banbridge																			S. Call, for Dr. Robinson
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.62	752.3	46.1	7.8		W			4		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.62	752.3	47.4	8.6		SW			1		10						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.59	751.6	55.9	13.3		WSW			3		7						H. Todd.
Cape Town, (Cape Colony)			29.97	761.2	70.2	21.2		NW			2		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.99	761.7			72.1	22.3	54	S E	15	6.7			4						The Staff, for E. J. Stone.
Cardington			29.66	753.4	56.0	13.3		W					3						John McLaren.
Carlisle			29.55	750.6	46.9	8.3		NW					9			0.24	6.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.66	753.4	56.2	13.4		SW			3		7						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.91	759.7	82.3	27.9		Calm			0		2						Sgt. W. F. Hopkins
Dartmoor			29.80	756.9	42.2	5.7		SW			1		10					Drizzling	R. E. Power.
Donaghadee			29.56	750 8	51	10.6		WNW			3		5						J. Mac Gowan, Jr.
Dover			29.67	754.1	49	9.4		SW			4		10					Fog	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.61	752.1	46.1	7.8		W	3.4	1.5			9						Thomas Mackereth.
Falmouth Observatory			29.73	755.1	51.7	10.9		SW	18	8.0			10					Fog	The Staff.
Fort Napier, (Natal)			29.97	761.2	71.3	21.8		E			3		5						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.57	751.1	50	10.0		W			2		10					Mist	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.90	759.4	61.2	16.2		E			4		2						Sergt. E. G. Baker.
Glasgow Observatory			29.59	749.3	45.0	7.2		WNW			2		5						James Gray.
Great Yarmouth			29.61	752.1	49	9.4		W			4		3						G. T. Watson.
Greenwich Royal Obs.			29.76	754.4	57.4	14.1		W			1		7						The Staff, for G. B. Airy.
Guernsey			29.79	756.7	52.0	11.1		SSW			3		8					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.55	750.6	44.4	6.9		WNW					9					Rainy	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.17	766.3	37.0	2.8		S			2		10					Fog	Corp'l J. Y. Thompson.
Helston			29.72	754.9	54	12.2		SW			4		10n					Rain	Dr. W. B. Moyle.
Holyhead			29.64	752.8	48	8.9		WSW			2		2						John Tilston.
Hull Park																			
Kew Observatory			29.69	754.1	53.5	11.9		WSW	19	8.5			7						The Staff.
Kingstown			29.64	752.8	49	9.4		WNW			2		8						George Mitchell.
Lampeter																			
Leicester Museum			29.66	753.4	52.0	11.1		W			6		4						William J. Harrison
Llandudno			29.65	753.1	49.5	9.7		WSW			1		6						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	58.6	14.8		SE			4		10k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.45	748.0	43	6.1		Calm			0		10						William D. Penny.
Nassau, (Bahamas)			30.00	762.0	70.2	21.2		Calm			0		9					Threatening	Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.63	752.6	53.3	11.8		WNW			4		9k		W				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.64	752.8	51.5	10.8		W			3-4		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.66	753.4	55	12.8		W			2		7						J. Lucas, for R. Main.
Plymouth			29.73	755.1	50	10.0		SSE			1		10					Rain	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.66	753.4	48	8.9		S			3		10						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.81	757.2	50.6	10.3		W			3		10						A. P. Amy.
Sandwick Manse (Orkneys)			29.42	747.3	40.1	4.5		NW	19	8.5			3						Rev. C. Clouston.
Scarborough																			F. Shaw.
Scutari, (Turkey)			30.14	765.5	48.4	9.1		SW			1		7						Sergt. W. H. Lyne.
Sheffield			29.60	751.8	47.0	8.3		WNW			2		8			0.079	2.0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.54	750.3	48.9	9.4		W			4		8			0.185	4.7		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.66	753.4	57.0	13.9		WSW			2		3						Rev. C. J. Steward.
Stonyhurst Observatory			29.59	751.6	46.0	7.8		W			3		8					Squally	The Staff.
Stornoway, Lews C. (Hebr)			29.46	748.3	41	5.0		NW			2		7						John Smith.
Strathfield Turgiss			29.68	753.9	53.0	11.7		W			1		8k						Rev Charles H. Griffith
Streatley Vicarage			29.60	751.8	58.2	14.6		WSW			3		6						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.32	744 7	38	3.3		N			4		10						William Lawrence.
Taunton College																			
Thurso			29.42	747.3	41	5.0		NNW			4		0						John Trotter.
Truro Royal Institution			29.63	752.6	53	11.7		S			4		10						W Newcombe.
Valencia Observatory			29.67	753.1	47.3	8.5		SW	6	2.7			10					Rain	The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.43	747.4	43.9	6.6	88	SSW			4		10						
Fanöe			29.38	746.2	42.1	5.6	88	WSW			6		9						
Godthaab, (Greenland)			29.91	759.6	11.7	-11.3		NW			6		10					Snow	
Stykkisholm, (Iceland)			29.15	740.5	35.6	2.0	87	SE			4		5						
Thorshavn, (Faröe)			29.45	748.0	37.9	3.3	58	ESE			2		6						
Vestervig			29.19	741.4	39.9	4.4	97	SW			6		10						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.88	759.0	56.8	13.8	75						5s						Normal School.
Alençon																			Normal School.
Amiens			30.09?	764.2?	51.1	10.6	65	WNW			4		2		WNW	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.81	757.1	58.6	14.8	50	WSW			3		8		W	0	0		Normal School.
Besançon			29.95	760.7	62.2	16.8	50	SW			4		0			0	0		Normal School.
Bourges			29.94	760.5	58.3	14.5	64	SW			3		2		WSW	0	0		Normal School.
Brest			29.78	756 3	54.1	12.3	71	SW			4		10		SW	0	0		Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			29.88	759.0	53.4	11.9		NNW			1		5		NW	0	0		Normal School.
Chaumont			29.89	759.2	61.0	16.1		SW			6		5		SW	0	0		Normal School.
Le Mans			29.95	760.8	53.2	11.8	54	SW			2		0			0	0		Normal School.
Mirecourt			29.78	756.4	62.6	17.0	49	SSW			4		2		NE	0	0		Normal School.
Orleans																			Normal School.
Paris			29.87	758.6	57.0	13.9		SW			3		8cs		SW	0	0		National Observatory.
Parthenay			29.97	761 3	52.3	11.3	52	W			2		8		W	0	0		Normal School.
La Roche sur Yon			29.91	759.6	58.3	14.6	55	S			2		2		NE	0	0		Normal School.
Rouen			29.83	757.7	55.2	12.9	53	WSW			2		10		SW	0	0		Normal School.
Saint Lo																			Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.76	628.9			45.3	7.4	72	E	16.8	7.5			2		E	0	0		—. Faiguère.
Montsouris (near Paris)			29.86	758.5	55.9	13.3	46	SW	7.0	3.4			7ks		WSW	0	0		Marié Davy.
Perpignan	29.85	758.2			58.0	14.8	68	NE	7.2	3.3			1			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.87	758.6	58.5	14.7	38	WSW			2		3			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.92	759.8	55.9	13.3	48	NW			1		2		NW	0	0		C. Marquet.
Versailles, (near Paris)			29.45	748.1	56.8	13.8	50	W			3		7			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.99	761.7	53.4	11.9	92	NNE	10.7	4.8			10			Blank	Blank		H. Le Leo, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.82	757.4	55.6	13.1	53	SW			5		7			0	0		Prof. Hoh.
Berlin			29.72	755.0	54.9	12.7	58	S			3		7			0	0		Prof. Arndt.
Breslau			29.86	758.5	54.0	12.2	54	SW			4		6			0	0		Dr. P. Neugebauer.
Carlsruhe			29.82	757.4	63.0	17.2	28	SW			5		9			0	0		A. Senz.
Cassel			29.66	753.4	58.5	14.7	40	SSW			3		6			0	0		Dr. H. Möhl.
Cologne			29.82	757.3	57.0	13.9	82	SW			7		7			0	0		Dr. Garthe.
Emden			29.66	753.3	49.3	9.6	68	SE			4		10			0.154	3.9		Prof. Prestel.
Frankfort on the Main			29.89	759.1	60.3	15.7	39	SW			4		3			0	0		Physical Society.
Friedrichshafen			29.93	760.1	5 .5	12.5	54	W					1			0	0		M. Wilhelm.
Hamburg			29.62	752.3	46.2	7.9	91	SW			8		10			0.173	4.4	Rain	W. Reinert.
Kiel			29.54	750.4	46.9	8.3	82	SW			4		10			0	0		Prof. G. Karsten.
Königsberg			29.71	754 5	42.3	5.7	90	SW			2		9			0.102	2.6		Prof. E. Luther.
Köslin			29.89	759.3	47.7	8.7		SW			4		10			0.189	4.8		Dr. T gert.
Leipsic			29.76	755.8	57.9	14.4	80	SW			5		7			0	0		Prof. Bruhns.
Münster			29.71	754.7	48.0	8.9	97	SW			5		10			0.114	2.9		Prof. E. Heis.
Posen			29.76	756.0	54.7	12.6	58	W			4		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.85	758.3	63.7	17.6	10	SW					2			0	0		Hartwig and Tülk.
Stuttgart			29.80	7 .6.8	63.3	17.4	33	W					2			0	0		Mr. Würth.
Thorn			29.73	755.1	50.7	10.4	69	SW			3		10			0.059	1.5		Dr. Rosenbalg.
Treves, (Trier)																			Prof. Flesch.
Wustrow			29.59	751.5	44.8	7.1	89	SW			4		10			0	0		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.04	762.9	58.5	14.7	55	WSW			2		3	S		0	0		
Mondovi			30.03	762.7	55 4	13.0	59	ENE			4		3			0	0		
Genoa			30.07	763.8	57.9	14.4	48	SW	3.8	1.7			2			0	0		
Pavia			30.04	762 9	60.3	15.7	36	S			4		0			0	0		
Verona			30.01	762.2	65.3	18.5	36	E			1		3			0	0		
Padua			30.04	762.9	59.	15.1	52	ENE	3.1	1.4			2	WSW		0	0		
Parma																			
Bologna			30.07	763.8	61.3	16.3	34	SE			0		0			0	0		
Livorno			30.07	763.6	57.4	14.1	37	W	2.5	1.1			2			0	0		
Urbino			30.04	763.1	56.7	13.7	32	ENE			2		0			0	0		
Ancona			30.09	764.2	59.0	15.0	58	W			4		0			0	0		
Siena			30.02	762.6	59.7	15.4	23	SE	0	0			3	SE		0	0		
Rome			30.04	763.1	65.3	18.5	35	S	2.5	1.1			5	SSE		0	0		
Naples, O. U.			30.10	764.5	63.9	17.7	49	SW			2		0	SSW		0	0		
Lecce			30.20	767.0	59.0	15.0	56	SSW	20.6	9.2			9			0	0		
Cosenza			30.12	765.0	60.4	15.8	48	NE			4		10			0	0		
Catania, (Sicily)			30.16	766.0	52.7	11.5	83	ENE			2		10	NE		0	0		
Riposto																			
Palermo			29.94	760.5	66.0	18.9	53	SE			2		10			0	0		
Sub-Series.																			
Naples, S. R.	29.54	750.3			58.1	14.5	46	SW			4		cs	W		0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.74	755.5	45.5	7.5		W			4								
Groningen			29.55	750.5	46.6	8.1		WSW			5								
Helder			29.60	751.8	46.4	8.0		SW			4								
Utrecht			29.64	752.9	47.3	8.5		SW			4		10						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.11	739.5	42.8	6.0	85	Calm	0	0			10			0	0	Fog	
Christiania			29.18	741.1	39.2	4.0	85	E	4.7	2.1			10			0.177	4.5		
Tromsö			29.16	740.7	32.4	0.2	44	SE			6		5			0.158	4.0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.62	752.3			62.6	17.0	61	WSW	8.7	3.9			9						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.81	757.1	50.2	10.1	68	S	9	4			10						Astronomical Obs.
Wilna			29.86	758.4	40.6	4.8	84	Calm	0	0			10						Astronomical Obs.
Dorpat			29.80	756.9	39.0	3.9	67	SSE	11	5			10						Physical Cabinet.
St. Petersburg			29.88	759.0	36.1	2.3	55	SSE	16	7			0						Central Physical Obs.
Kieff			30.09	764.3	36.5	2.5	72	S	7	3			9						Physical Cabinet.
Nikolaiev			30.13	765.2	37.4	3.0	62	S	4	2			9						
Kertch			30.13	765.2	41.5	5.3	66	SSE	8	3.5			7						Lagorio.
Moscow			30.00	761.9	36.5	2.5	75	NW	8	3.5			10						Meteorological Obs.
Lugan			29.91	759.8	34.7	1.5	72	W	17	7.5			6						Meteorological Obs.
Archangel			30.11	764.7	38.8	3.8	70	ESE	4	2			10						Ogorodnikof.
Tiflis			29.95	760.6	43.2	6.2	36	NW	25	11			7						Physical Obs.
Astrakhan			29.84	757.8	43.2	6.2	79	WNW	13	6			10						Sebastianof.
Kasan			29.96	760.9	39.4	4.1	77	E	10	4.5			10						Physical Cabinet.
Orenburg			30.08	764.1	38.5	3.6	67	SE	8	3.5			6						Tschernischef.
Ekaterinburg			30.39	771.8	32.7	0.4	85	E	8	3.5			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.66	778.8	29.7	— 1.3	69	NE	4	2			0						Meteorological Obs.
Yeniseisk			30.40	772.2	33.8	1.0	71	NW	4	2			10						arks.
Irkutsk																			Usolzef.
Oorga			30.60	777.3	12.7	—10.7	92	NW	10	4.5			0						Mossin.
Peking, (China)			29.91	759.7	59.4	15.2	39	Calm	0	0			9						Physical Observatory
Nertchinsk			29.89	759.3	29.1	— 1.6	54	NNW	10	4.5			3						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurd kof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.91	759.8	60.6	15.9	35	SW	6.0	2.7		3	0	SW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.46	748.2	32.0	0.0	100	S			2		10			0.06	1.4	Snow	
Hernosand			29.33	745.0	35.2	1.8	90	SSE			1		10			0.07	1.8	Rain & snow	
Stockholm			29.28	743.8	36.0	2.2	94	SSW			1		10			0.27	6.9	Rain	
Wisby			29.80	756.9	37.4	3.0	100	SW			3		10			0.31	7.9		
Sub-Series.																			
Upsala			29.28	743.8	35.2	1.8	95	SSE			4		10					Rain	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.51	724.2			64.0	17.8	21	SSW			2		0			0	0		The Observatory.
Zurich	28.26	717.9			62.8	17.1	36	W			2		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.0mm.; Thermometer, +7°.5 C.; Relative Humidity, —37 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.14	765.6	51.8	11.0	56	SW	7.8	3.5			8		SW	0	0		
Fao, (Persian Gulf)			30.10	764.5	70.3	21.3		NW			3		5						
Salonica			30.15	765.9	62.2	16.8		NW			1		0						
Valona			30.10	764.5	63.5	17.5		SW			2		0						
Varna			30.08	764.0	53.6	12.0		E			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.18	766.6	35	1.7		Calm	0	0		5c	2s	SE	SE	0	0		
Chatham, N. B.			30.12	765.0	36	2.2	95	NW	1	0.4			8ks			0.22	5.6		
Charlottetown, P. E. Island			30.13	765.3	41	5.0	97	S	3	1.3			0			0	0	Fog.	
Fort Garry, Manitoba			30.33	770.4	18	— 7.8	92	E	15	6.7		5k	2ks	SE	SE	0	0		
Halifax, N. S.			30.09	764.3	37	2.8	99	SE	2	0.9			Fog			0.01	0.3		
Kingston, Ontario			30.15	765.8	32	0.0	89	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.15	765.8	35	1.7	80	SE	6	2.7			Fog			0.09	2.3	Fog	
Ottawa, Ontario			30.16	766.1	25	— 3.9	50	Calm	0	0		2c	Fog	E		0	0		
Parry Sound, Ontario			29.97	761.2	37	2.8	86	SE	10	4.5		2ck	8ks	SW	SW	0.05	1.3	Threatening	
Port Dover, Ontario			30.04	763.0	37	2.8	71	S	5	2.2		10k	0	W		0	0		
Port Stanley, Ontario			30.02	762.5	35	1.7	86	E	4	1.8		0	0			0	0		
Quebec, Quebec			30.15	765.8	34	1.1	79	Calm	0	0		0	0			0.11	2.8		
Saugeen, Ontario			29.95	760.7	39	3.9	91	SW	10	4.5			10n		E	0	0		
Stayner																			
Sydney, C. B.			30.20	767.1	39	3.9	94	S	6	2.7			Fog			0	0		
Toronto, Ontario			30.03	762.7	38	3.3	73	E	4	1.8		5ck	5ks	W	W	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

States.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.11	764.8	36	2.2	80	NW	2	0.9			10ks			0.06	1.5		
Alpena, Mich.			30.00	762.0	37	2.8	81	NW	10	4.5			10s			0.02	0.5		
Atlantic City, N. J.			30.00	762.0	38	3.3	100	N	16	7.2			10n		N	0.65	16.5	Light rain	
Augusta, Ga.			30.21	767.3	48	8.9	78	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.09	764.3	46	7.8	61	NW	3	1.3		2c	2s			0	0		
Barnegat, N. J.			29.98	761.5	38	3.3	100	NW	24	10.7			10n		NW	0.34	8.6	Light rain	
Benton, Montana			30.22	767.6	4	−15.6	100	NW	16	7.2			10s			0	0	Light snow.	
Bismarck, Dakota			29.65	753.1	26	− 3.3	100	E	7	3.1			10s			0.12	3.0	Heavy snow	
Boston, Mass.			30.07	763.8	38	3.3	95	NE	10	4.5			10n			0.69	17.5	Light rain	
Breckenridge, Minn.			30.08	764.0	30	− 1.1	89	SE	4	1.8		8k	0	SW		0	0		
Buffalo, N. Y.			30.01	762.2	43.5	6.4	55	S	12	5.4		2ck	2k	W		0	0		
Burlington, Vt.			30.15	765.8	34	1.1	71	N	4	1.8			10s			0.03	0.8		
Cairo, Ill.			30.05	763.3	57	13.9	52	Calm	0	0		0	0			0	0		
Cape Hatteras, N. C.			30.06	763.5	47	8.3	85	NE	18	8.0			10s		N	2.53	64.3		
Cape Henry, Va.			30.08	764.0	46	7.8	84	NW	17	7.6		0	8s		NW	1.05	26.7		
Cape May, N. J.			30.03	762.7	39	3.9	90	N	14	6.2			10n		N	1.07	27.2	Light rain	
Charleston, S. C.			30.21	767.3	46	7.8	77	NE	8	3.6			Haze			0.08	2.0		
Cheyenne, W. T.			29.55	750.6	33	0.6	89	SE	8	3.6			10n			0.08	2.0	Threatening	
Chicago, Ill.			30.11	764.8	42	5.6	83	NE	3	1.3		5k	0	N		0	0		
Cincinnati, Ohio			30.08	764.0	46	7.8	69	SE	4	1.8		0	0			0	0		
Cleveland, Ohio			30.00	762.0	43.3	6.3	63	SE	7	3.1		2k	0	SW		0	0		
Colorado Springs, Col.			29.55	750.6	37	2.8	53	SE	4	1.8		0	0			0	0		
Corsicana, Texas			29.96	761.0	54	12.2	86	S	6	2.7			10s			0	0		
Davenport, Iowa			30.11	764.8	42	5.6	84	NE	1	0.4		2c	0	W		0	0		
Denver, Col.			29.62	752.3	31	− 0.6	68	S	6	2.7		5k	0	SW		0	0		
Detroit, Mich.			29.99	761.7	45	7.2	76	NW	6	2.7		0	Haze			0.02	0.5		
Dodge City, Kansas			29.54	750.3	34	1.1	79	N	20	8.9			10s			0	0		
Dubuque, Iowa			30.13	765.3	34	1.1	79	Calm	0	0		0	Fog			0	0	Light fog	
Duluth, Minn.			30.25	768.3	31	− 0.6	78	NE	8	3.6			10s			0.06	1.5		
Eastport, Me.			30.05	763.3	36	2.2	100	NE			1		10n			0.20	5.1	Light rain	
Erie, Penn.			30.00	762.0	47	8.3	48	S	20	8.9		0	8ks			0	0		
Escanaba, Mich.			30.15	765.8	30	− 1.1	89	N	18	8.0			10s			0.30	7.6		
Fort Gibson, I. T.			29.85	758.2	58	14.4	60	SE	12	5.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.78	756.4	38	3.3	81	SE	28	12.5		0	10n			0.02	0.5	Light rain	
Galveston, Texas			30.04	763.0	63	17.2	73	S	12	5.4		0	5ks			0	0		
Grand Haven, Mich.			30.10	764.5	39	3.9	81	N	4	1.8			10s			0.08	2.0		
Indianapolis, Ind.			30.03	762.7	47	8.3	59	Calm	0	0		0	Sm'e			0	0		
Indianola, Texas			30.01	762.2	63	17.2	83	S	10	4.5		0	5s			0	0		
Jacksonville, Fla.			30.16	766.1	56	13.3	68	N	5	2.2		0	0			0	0		
Keokuk, Iowa			30.07	763.8	40	4.4	82	SE	11	4.9			10s			0	0		
Key West, Fla.			30.05	763.3	69.5	20.8	66	NE	8	3.6		Haze	0			0.22	5.6		
Kittyhawk, N. C.			29.99	761.7	44	6.7	84	N	16	7.2			10n		N	3.17	80.5	Light rain	
Knoxville, Tenn.			30.20	767.1	39	3.9	90	Calm	0	0		0	Fog			0	0		
La Crosse, Wis.			30.13	765.3	34	1.1	79	NW	1	0.4		0	0			0	0		
Leavenworth, Kan.			29.95	760.7	45	7.2	67	E	8	3.6		0	0			0	0		
Lexington, Ky.			30.10	764.5	52	11.1	60	SW	13	5.8		0	0			0	0		
Long Branch, N. J.			30.03	762.7	38	3.3	100	NW	8	3.6			10n			0.58	14.7	Light rain	
Louisville, Ky.			30.06	763.5	50	10.0	51	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.15	765.8	43	6.1	67	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.22	767.6	23	− 5.0	73	NW	24	10.7			10s			0	0		
Memphis, Tenn.			30.08	764.0	54	12.2	67	S	3	1.3		0	Sm'e			0	0		
Milwaukee, Wisconsin			30.13	765.3	38	3.3	80	NE	10	4.5		0	0			0.15	3.8		
Mobile, Ala.			30.18	766.6	48	8.9	92	N	1	0.4		0	Fog			0	0		
Montgomery, Ala.			30.20	767.1	49	9.4	85	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			30.11	764.8	39	3.9	80	Calm	0	0		0	8s			0	0		
Mt. Washington, N. H.			30.09	764.3	34	1.1	100	S	14	6.2		10s	5s			0.30	7.6		
Nashville, Tenn.			30.11	764.8	52	11.1	65	S	2	0.9		0	0			0	0		
New Haven, Conn.			30.06	763.5	37	2.8	90	N	15	6.7			10n			0.26	6.6	Light rain	
New London, Conn.			30.05	763.3	40	4.4	86	N	9	4.0			10n		NE	0.32	8.1	Light rain	
New Orleans, La.			30.16	766.1	53.5	11.9	80	Calm	0	0		2cs	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			30.05	763.3	37	2.8	80	N	16	7.2			10n			0.31	7.9	Light rain	
Norfolk, Va.			30.09	764.3	44.5	6.9	76	N	13	5.8		2c	0	NW		0.76	19.3	Clearing	
North Platte, Neb.			29.33	745.0	43	6.1	83	SE	10	4.5		5c	5s	W		0.08	2.0		
Omaha, Neb.			29.93	760.2	39	3.9	82	E	8	3.6			10n			0	0	Light rain	
Oswego, N. Y.			30.10	764.5	39.3	4.1	71	SSE	3	1.3		8cs	1s	SW		0	0		
Peck's Beach			30.02	762.5	39	3.9	91	N	18	8.0			10s			0.95	24.1		
Pembina, D. T.			30.21	767.3	23	− 5.0	93	E	16	7.2			10s			0	0		
Philadelphia, Penn.			30.06	763.5	42	5.6	58	N	12	5.4			10s		NW	0.03	0.8		
Pike's Peak, C. T.			29.58	751.3	11	−11.7	100	SW	60	26.8		0	2s			0	0		
Pittsburgh, Penn.			30.08	764.0	37	2.8	80	Calm	0	0		8k	0	W		0	0		
Port Huron, Mich.			30.01	762.2	40	4.4	82	NW	9	4.0			8s			0	0		
Portland, Maine			30.11	764.8	38	3.3	72	N	12	5.4			10n			0.27	6.9	Light rain	
Portland, Or.			30.02	762.5	35	1.7	79	N	8	3.6			10s			0.01	0.3		
Punta Rassa, Fla.			30.11	764.8	62.6	17.0	78	NE	13	5.8		0	1ks			0	0		
Rochester, N. Y.			30.05	763.3	42	5.6	58	SE	8	3.6		2c	2s	W		0	0		
Salt Lake City, Utah			29.65	753.1	32	0.0	79	Calm	0	0			10s			0	0		
Sandy Hook, N. J.			30.02	762.5	37	2.8	100	N	15	6.7			10n		N	0.43	10.9	Light rain	
San Diego, Cal.			29.91	759.7	55	12.8	79	S	12	5.4			10s			0	0		
San Francisco, Cal.			30.10	764.5	42	5.6	50	NW	12	5.4		0	0			0	0		
Santa Fe, N. M.			29.52	749.8	36	2.2	38	E	8	3.6		0	0			0	0		
Savannah, Georgia			30.19	766.8	52	11.1	79	N	4	1.8		0	0			0	0		
Shreveport, La.			30.06	763.5	53	11.7	82	SE	3	1.3		8c	0	W		0	0		
Springfield, Mass.			30.08	764.0	39	3.9	63	NE	8	3.6			10n			0.15	3.8	Light rain	
St. Louis, Mo.			30.06	763.5	48	8.9	70	NE	4	1.8		2c	0			0	0		
St. Marks, Fla.			30.18	766.6	48	8.9	92	N	3	1.3		0	0			0	0		
St. Paul, Minn.			30.10	764.5	30	− 1.1	79	N	2	0.9		0	0			0	0		
St. Paul's Island, Alaska			29.79	756.7	29	− 1.7	66	WSW	35	15.6		1ck	8k	WSW		0.22	5.6		
Squan Beach, N. J.			30.00	762.0	38	3.3	90	N	7	3.1			10n		N	1.11	28.2	Light rain	
Toledo, Ohio			30.03	762.7	49	9.4	71	W	4	1.8		0	Sm'e			0	0		
Tybee Island, Ga.			30.19	766.8	52	11.1	86	NE	10	4.5		Haze	0			0.10	2.5		
Vicksburg, Miss.			30.19	766.8	51	10.6	93	S	7	3.1		0	Haze			0	0		
Virginia City, Mon.			29.41	747.0	0	−17.8	72	NE	20	8.9			10s			0	0		
Washington, D. C.			30.11	764.8	44	6.7	64	N	6	2.7		2c	Haze			0	0		
Wilmington, N. C.			30.16	766.1	44	6.7	75	NW	8	3.6		0	0			0.54	13.7		
Wood's Hole, Mass.			30.01	762.2	39	3.9	90	NE	8	3.6			10n			0.44	11.2	Light rian	
Wytheville, Va.			29.57	751.1	41	5.0	65	W	4	1.8		0	0			0	0		
Yankton, D. T.			30.01	762.2	34	1.1	79	E	11	4.9			10s			0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.01	764.5	78	25.6		E	6	2.7		5c	2ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.93	760.2	72	22.2		NE				5c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.84	757.9	76	24.4	67	NE	2.4	1.1		5fc	0	NE		0.07	1.8		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.16	766.1	76	24.4		Calm	0	0		0	10s			0	0		James Gall.
St. Thomas, St. T., W. I.	30.19	766.8			76	24.4		N	4	1.8		0	2k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.78	75 .4	74	23.3	81	NE	3.6	1.6		8ck	2n	NE		Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.02	762.5	64.5	18.1	70	NNE	11.1	5.0		8cs	5k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			29.94	760.5	60	15.6	83	SW				5n	7n	SW		0.47	11.9	Threatening	E. P. Church.
Makawao, Maui, S. I.			29.76	755 9	56.5	13.6	87	NE	3.6	1.6		0	2ks			0.70	17.8		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.59	777.0	—18.5	— 7.5	100	NW	12	5.4		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.02	762.5	66	18.9	93	N	2.0	0.9		5c	2k	NE		0.53	13.5		C. Partridge.
St. John's, Newfoundland			30.55	776.0	36.5	2.5	95	SE				Sm'c	Sm'c			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.00	761.9	74.1	23.3	68	SE			1	4cs	0			0.030	0.75		Leon M. Acuña.
Ellyria, Ohio.			29.99	761.7	44	6.7	60	S	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.15	740.4			36	2.2		SE				8cs	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 5, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.92	760.0	59.4	15.2		NE			2		1			0	0		Charnot.
Algiers			29.82	757.5	60.4	15.8	81	WNW			3		0			0	0		Peter.
La Calle			29.82	757.5															Kuntz.
Tunis			29.83	757.6	65.3	18.7	67	E			3		8			0.252	6.4		Jacques.
Sfax			29.85	758.1															Chauvey.
Saïda			29.90	759.5	54.1	12.3		WSW			3		9			0.945	24.0	Rain	Grosjean.
Tebessa			29.84	757.9	56.5	13.6					5		9			0.591	15.0	Rain	Colin.
Geriville			29.88	759.0	58.1	14.5		SW			3		9			0.039	1.0	Rain	Bernadach.
Laghouat			29.85	758.1	55.4	13.0	77	SW			1		10			0	0		Poinsignon.
Biskra			29.84	758.0	56.5	13.6		NW			4		10			0.158	4.0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.89	759.2	62.4	16.9	35	SW			3		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.82	757.4	62.6	17.0	40	SW			2		0			0	0		I. R. Observatory.
Eperies			29.91	759.7	52.5	11.4	75	SE			2		2cs			0	0		Julius Mikolik.
Gratz			29.81	757.2	61.7	16.5	47	WNW			5		5			0	0		Andreas Rospini.
Hermannstadt			29.97	761.3	58.6	14.8	52	ESE			1		0			0	0		Prof. Reissenberger.
Kremsmünster			29.71	754.6	59.0	15.0	50	E			1					0	0		Prof. C. Wagner.
Lemberg			29.89	759.3	50.9	10.5	66	SW			3		2			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.97	761.2	61.9	16.6	53	S			1		0			0	0		Habsuda Daniel.
Pola			29.93	760.2	50.7	13.7	78	SE			4		0ks			0	0		I. R. Hydrographic Office
Szegedin			29.92	759.9	62.6	17.0	43	S			3		4			0	0		Karl Stancel.
Trieste			29.95	760.6	57.4	14.1	74	Calm			0		10			0.118	3.0	Drizzling	Prof. V. Farolfi.
Vienna			29.82	757.3	59.5	15.3	54	SsE			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.40	744.2			61.0	16.1	42	SW			3		7		SSW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			28.98	736.1	42.0	5.6		SE	10	8.5			10			0.440	11.2	Rain	William Boswell.
Annanhill																			
Ardrossan			28.97	735.8	41	5.0		WNW			2		8					Rain	William McNeil.
Armagh Observatory			29.07	738.4	46.9	8.3		N	11	4.9			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.04	737.6	46.2	7.9		SW			4		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.08	738.6	43.8	6.6		NW			1		9						J. Dreyer, for L'd Rosse
Bradford			29.04	737.6	49.1	9.5		SW			4		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.25	742.9	56.1	13.4		SSW			4		5						H. Todd.
Cape Town, (Cape Colony)			30.03	762.7	66.0	18.9		SE			8		6						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.94	760.5			66.8	19.3	65	S	23	10.3			1						The Staff, for E. J. Stone.
Cardington			29.44	747.8	56.0	13.3		SW					3						John McLaren.
Carlisle			29.11	739.4	45.3	7.4		W					9			0 12	3.0	Snow	T. Bell, for J. Cartmell.
Chatham, School M. E.			29.32	744.7	46.8	8.2		SW			4		8					Showery	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	758.9	82.0	27.8		SE			1		3						Sgt. W. F. Hopkins
Dartmoor			29.30	744.2	40.5	4.7		SW			6		7						R. E. Power.
Donaghadee			29.00	736.6	47	8.3		WNW			4		2						J. Mac Gowan, Jr.
Dover			29.39	746.5	46	7.8		SW			5		7						J. Costello.
Dublin																			
Durham Observatory																			
Eccles, (near Manchester)			29.07	738.4	49.7	9.8		SSW	5.6	2.5			5						G. D. Goldney.
Falmouth Observatory			29.28	743.7	48.1	8.9		SW	34	15 2			4					Squally	Thomas Mackereth.
Fort Napier, (Natal)			29.81	757.2	76.0	24.4		E			3		4						The Staff.
Freetown, (Sierra Leone.)																			Pvt. G. Salmon.
Galway, Queen's College			29.08	738.6	51	10.6		W			1		7						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.88	758.9	63.0	17.2		ENE			3		5						Sergt. E. G. Baker.
Glasgow Observatory			29.97	761.2	38.7	3.7		NE			1		10						James Gray.
Great Yarmouth			29.31	744.5	49	9.4		S			5		8					Mist	G. T. Watson.
Greenwich Royal Obs.			29.32	744 7	54.9	12.7		SW			5		9						The Staff, for G. B. Airy.
Guernsey			29.40	746.7	52.0	11.1		SW			3		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.02	737.1	47.2	8.4		SSW					5					Rain	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.90	759.4	37.8	3.2		SE			1		10					Rain	Corp'l J. Y. Thompson.
Helston			29.24	742.7	50	10.0		SW			6		5						Dr. W. B. Moyle.
Holyhead			29.01	736.8	43	6.1		NNW			4		3						John Tilston.
Hull Park																			
Kew Observatory			29.71	754.6	51.6	10.9		SSW	35	15.6			9						The Staff.
Kingstown			29.04	737 6	47	8.3		WNW			2		8						George Mitchell.
Lampeter																			
Leicester Museum			29.20	741.7	50.0	10.0		SW			6		3						William J. Harrison
Llandudno																			Dr. James Nicol.
Malta, (Mediterranean)			29.86	758.9	64.0	17.8		SE			3		10k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			28.99	736.3	40	4.4		Calm			0		10					Rain	William D. Penny.
Nassau, (Bahamas)			30.10	764.5	72.5	22.5		N			5		7						Surg.-Maj. J. Jameson.
North Shields			29.02	737.1	46	7.8		S			4		4						John Wm. Irvine.
Nottingham			29.17	740.9	53.0	11.7		SSW			6		5ck		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.14	740.1	48.9	9.4		S			6		6						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.23	742 4	49	9.4		SW			6		5						J. Lucas, for R. Main.
Plymouth			29.27	743.4	51	10.6		SW			5		3						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Coehy foel																			
Roche's Point			29.08	738.6	46	7.8		WNW			4		8					Showery	W. Kennedy.
Saint Ann's Head			29.39	738.9	45	7.2		SW			6		8						John C. Walker.
Saint Helier, (Jersey)			30.41	747.0	49.6	9.8		SW			5		8						A. P. Amy.
Sandwick Manse (Orkneys)			29.07	738.4	37.0	2.8		E	37	16.5			10					Rain & hail	Rev. C. Clouston
Scarborough			29.09	738.9	50.9	10.5		SSW			6		3						F. Shaw.
Scutari, (Turkey)			30.13	765.3	55.0	12.8		SSW			1		9						Sergt. W. H. Lyne.
Sheffield			29.10	739.1	52.4	11.3		SW			7		5			0.092	2.3		W. F. Cooper.
Sidmouth																			
Silloth Rectory			28.99	736.3	44.9	7.2		WSW			5		10			0.060	1.5	Rain	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.36	745.7	52.8	11.6		SSW			2		7						Rev. C. J. Steward.
Stonyhurst Observatory			29.06	738.1	49.0	9.4		S			3		10					Rain	The Staff.
Stornoway, Lewis C. (Hebr.)			29.10	739.1	42	5.6		NE			3		10					Rain	John Smith.
Strathfield Turgiss			29.28	743.7	55.0	12.8		SW			2-3		2k						Rev Charles H. Griffith
Streatley Vicarage			29.29	744.0	52.7	11.5		SSW			9		4						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.26	743.2	42	5.6		SE			6		10					Rain	William Lawrence.
Taunton College																			
Thurso			29.11	739.4	39	3.9		SE			6		9						John Trotter.
Truro, Royal Institution			29.22	742.2	51	10.6		SW			8		7						W Newcombe.
Valencia Observatory			29.11	739.4	46.4	8.0		WNW	33	14.8			10						The Staff.
Wick																			
Wisbeach																			
Worthing																			
York			29.36	745.7	49.0	9.4		SSW			4		7						William J. Harris.

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.67	753.5	44.8	7.1	81	SW			2		4						
Faröe			29.55	750.5	50.9	10.5	87	S			4		5						
Godthaab, (Greenland)			30.14	765.5	8.8	—12.9		E			4		0						
Stykkisholm, (Iceland)			29.98	736.1	40.3	4.6	87	SE			6		5						
Thorshavn, (Faröe)			29.33	745.0	39.7	4.3	73	E			2		10					Snow & hail.	
Vestervig			29.50	749.3	49.3	9.6	84	E			2		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Lower 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.74	755.4	56.3	13.5	86						10n						Normal School.
Alençon																			Normal School.
Amiens			29.69?	754.2?	58.6	14.8	74	W			4		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.54	750.4	57.2	14.0	50	SW			4		10		SW	0	0		Normal School.
Besançon			29.72	754.8	63.0	17.2	49	SSW			4		0			0	0		Normal School.
Bourges			29.99	761.8	55.8	13.2	61	WSW			6		2		WSW	0	0		Normal School.
Brest			29.39	746.5	52.3	11.3	65	SW			4		10		SW	0.010	0.25	Showery	Naval Observatory.
Caen																			Normal School.
Carcassonne																			
Chartres			29.54	750.3	53.6	12.0		NNE			6		8		NNE	0.020	0.5		Normal School.
Chaumont			29.67	753.6	57.4	14.1		S			4		1k		SW	0	0		Normal School.
Le Mans			29.62	752.3	49.6	9.8	63	SW			6		5		SW	0	0		Normal School.
Mirecourt			29.57	751.0	62.2	16.8	28	S			6		2		SW	0	0		Normal School.
Orleans																			Normal School.
Paris			29.52	749.9	60.6	15.9		SSW			4		8		SW	0	0		National Observatory.
Parthenay			29.71	754.7	52.3	11.3	70	SW			6		10		W	0	0		Normal School.
La Roche sur Yon			29.57	751.1	54.3	12.4	76	W			4		10		NE	0.008	0.2		Normal School.
Rouen			29.49	749.1	54.9	12.7	61	SE			4		10		S	0	0		Normal School.
Saint Lo																			Normal School.
Villefranche																			Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.58	624.4			48.0	8.9	63	ESE	11.2	5.0			8		W	0	0		—. Falguère.
Montsouris (near Paris)			29.55	750.6	61.5	16.4	36	SW	12.5	5.6			9kn		SSW	0	0		Marié Davy.
Perpignan	29.60	751.9			58.6	14.8	77	WNW	0	0			5			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.56	750.8	61.5	16.4	24	SSW			4		9			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.59	751.6	57.2	14.0	55	SW			3		10		NW	0	0		C. Marquet.
Versailles, (near Paris)			29.15	740.3	59.7	15.4	45	SW			4		8			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.20	767.1	49.8	9.9	62	N	18.0	8.3			Fog			0	0	Fog	H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.69	754.2	58.1	14.5	49	SW			2		4			0	0		Prof. Hoh.
Berlin			29.73	755.2	61.7	16.5	42	S			1		1			0	0		Prof. Arndt.
Breslau			29.84	757.9	62.8	17.1	32	SSW			1		0			0	0		Dr. P. Neugebauer.
Carlsruhe			29.65	753.1	65.8	18.8	40	SSW			3		2			0	0		A. Senz.
Cassel			29.67	753.6	66.0	18.9	67	S			2		1			0	0		Dr. H. Möhl.
Cologne			29.67	753.7	63.7	17.6	54	SSW			8		5			0	0		Dr. Garthe.
Emden			29.52	749.9	60.3	15.7	55	SSW			2		1			0	0		Prof. Prestel.
Frankfort on the Main			29.74	755.3	66.2	19.0	38	SW			1		4			0	0		Physical Society.
Friedrichshafen			29.72	754.8	59.0	15.0	44	SW					5			0	0		M. Wilhelm.
Hamburg			29.65	753.1	58.3	14.6	52	S			4		5			0.075	1.9		W. Reinert.
Kiel			29.65	753.0	54.9	12.7	74	SE			4		6			0	0		Prof. G. Karsten.
Königsberg			29.80	756.9	46.8	8.2	69	W			2		2			0.220	5.6		Prof. E. Luther.
Köslin			29.96	760.9	48.9	9.4		N			2		3			0	0		Dr. T gert.
Leipsic			29.72	755.0	63.3	17.4	40	SW			2		2			0	0		Prof. Bruhns.
Münster			29.54	750.2	64.2	17.9	64	SW			3		0			0.008	0.2		Prof. E. Heis.
Posen			29.79	756.6	60.3	15.7	49	W			4		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.66	753.4	66.6	19.2	30	S					2			0	0		Hartwig and Tülk.
Stuttgart			29.64	752.8	66.4	19.1	20	SW					5			0	0		Mr. Würth.
Thorn			29.77	756.2	57.9	14.4	82	W			4		5			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.57	751.0	65.3	18.5	21	S			7		5			0.008	0.2		Prof. Flesch.
Wustrow			29.70	754.4	52.7	11.5	78	SSW			1		5			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.97	761.2	49.1	9.5	74	ESE			2		10	NE		0.114	2.9		Light rain
Mondovi			29.95	760.8	45.1	7.3	80	NW			2		10			0.063	1.6		Rain
Genoa			29.89	759.1	50.4	10.2	68	NE	8.1	3.6			10	E		0.150	3.8		Light rain
Pavia			29.94	760.4	50.7	10.4	84	E			4		10	E		0.177	4.5		Light rain
Verona			29.87	758.8	63.5	17.5	46	E			4		10			0.059	1.5		Rain
Padua			29.91	759.6	56.5	13.6	72	ENE	13.0	5.8			10	ENE		0	0		
Parma																			
Bologna			29.93	760.3	58.3	14.6	86	WNW			2		5	SW		0	0		
Livorno			29.89	759.2	57.4	14.1	75	E	7.4	3.3			10			0.090	2.3		
Urbino			29.88	759.0	56.3	13.5	62	NE			4		0			0	0		
Ancona			29.77	756.2	57.2	14.0	59	SE			2		2			0	0		
Siena			29.85	758.3	60.6	15.9	57	SE	0	0			9	SW		0	0		
Rome			29.89	759.3	64.0	17.8	57	S	21.0	9.4			9	S		0	0		Light rain
Naples, O. U.			29.91	759.6	65.8	18.8	54	SSE			1		10			0	0		Light rain
Lecce			30.05	763.3	58.1	14.5	51	S	33.6	15.0			10			0	0		
Cosenza			29.95	760.7	60.3	15.7	66	NW			2		10			0	0		Light rain
Catania, (Sicily)			29.96	760.9	57.2	14.0	86	NE			2		10	NE		0	0		
Riposto																			
Palermo			29.78	756.3	64.2	17.9	58	NNE			2		9	N		0	0		
Sub-Series.																			
Naples, S. R.	29.39	746.5			60.8	16.0	50	S			2-4		10	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.48	748.9	54.3	12.4		SW			5								
Groningen			29.43	747.5	59.7	15.4		S			5								
Helder			29.44	747.7	51.4	10.8		SW			4								
Utrecht			29.43	747.6	62.2	16.8		SSW			5		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Möhn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.43	747.5	44.1	6.7	58	S	9.4	4.2			10			0.039	1.0		
Christiania			29.52	749.8	45.0	7.2	72	SSE	4.0	1.8			6			0.087	2.2		
Tromsö			29.48	748.9	30.6	— 0.8	94	SE			2		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.57	751.1			57.7	14.3	57	W	7.4	3.3			0						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.81	757.1	57.0	13.9	65	S	4	2			0						Astronomical Obs.
Wilna			29.80	756.9	44.8	7.1	76	S	4	2			6						Astronomical Obs.
Dorpat			29.67	753.6	38.7	3.7	87	SSW	9	4			10						Physical Cabinet.
St. Petersburg			29.65	753.0	34.9	1.6	91	SSE	13	6			10						Central Physical Obs.
Kieff			30.16	766.0	40.1	4.5	76	S	11	5			5						Physical Cabinet.
Nikolaiev			30.22	767.5	43.5	6.4	57	S	4	2			3						
Kertch			30.25	768.3	43.2	6.2	60	NE	8	3.5			2						Lagorio.
Moscow			30.01	762.3	39.4	4.1	42	W	8	3.5			0						Meteorological Obs.
Lugan			30.04	763.0	36.1	2.3	74	W	10	4.5			10						Meteorological Obs.
Archangel			30.01	762.2	38.5	3.6	73	ESE	8	3.5			10						Ogorodnikof.
Tiflis			30.13	765.4	46.0	7.8	36	NW	20	9			7						Physical Obs.
Astrakhan			30.15	765.8	44.1	6.7	58	NW	4	2			10						Sebastianof.
Kasan			29.76	755.8	37.0	2.8	94	S	4	2			10						Physical Cabinet.
Orenburg			30.04	763.1	41.5	5.3	99	SE	6	2.5			10						Tschernischef.
Ekaterinburg			30.26	768.7	32.0	0.0	85	E	13	6			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.52	775.2	32.9	0.5	57	NE	4	2			0						Meteorological Obs.
Yeniseisk			30.15	765.7	26.2	— 3.2	66	NW	17	7.5			0						Parks.
Irkutsk																			Usolzef.
Oorga			30.52	775.1	13.3	—10.4	88	Calm	0				0						Mossin.
Peking, (China)			30.30	769.6	40.1	4.5	39	NW	8	3.5			0						Physical Observatory.
Nertchinsk			30.11	764.8	12.2	—11.0	55	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.74	755.3	63.9	17.7	38	W	9.6	4.3		7	1	W		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.49	749.0	36.3	2.4	65	NNE			2		10			0.01	23.0	Snow	
Hernosand			29.49	748.9	37.0	2.8	75	N			2		10			0	0		
Stockholm			29.52	749.9	37.6	3.1	90	W			3		10			0.01	0.3		
Wisby			29.60	751.9	40.6	4.8	90	W			1		8			0	0		
Sub-Series.																			
Upsala			29.55	750.6	35.6	2.0	89	Calm			0		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.30	718.9			58.1	14.5	38	NNW			2		6			0	0	Mist	The Observatory.
Zurich	28.07	712.9			64.4	18.0	33	S			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —5.3mm.; Thermometer, +4°.0 C.; Relative Humidity, —20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			30.11	764.8	58.8	14.9	55	NNW			3		5						
Constantinople			30.15	765.7	57.0	13.9	64	SSW	7	3			5		WNW	0	0		
Fao, (Persian Gulf)			30.12	765.0	69.8	21.0		NW			1		0						
Salonica			30.08	763.9	63.1	17.3		SW			1		10						
Valona			29.99	761.7	58.6	14.8		SW			1		10						
Varna			30.04	763.0	50.0	10.0		SW			2		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			30.39	771.9	40	4.4		N	6	2.7		0	0			Blank	Blank		
Chatham, N. B.			30.06	763.5	34	1.1	97	N	7	3.1			8s		NW	0.21	5.3		
Charlottetown, P. E. Island			29.96	761.0	37	2.8	90	N	3	1.3			10n			0.01	0.3	Light rain	
Fort Garry, Manitoba			30.14	765.5	24	— 4.4	94	SE	21	9.4			10n			0	0	Light snow	
Halifax, N. S.			29.83	757.7	37	2.8	98	E	7	3.1			10n			0.109	2.81	Light rain	
Kingston, Ontario			30.39	771.9	41	5.0	91	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.28	769.1	38	3.3	67	N	15	6.7		2cs	2s	W		0	0		
Ottawa, Ontario			30.36	771.1	35	1.7	71	N	15	6.7		2k	0	N		0	0		
Parry Sound, Ontario			30.51	774.9	31	— 0.6	84	NE	13	5.8		2ck	5ks	NE	NE	0	0		
Port Dover, Ontario			30.42	772.7	37	2.8	71	N	12	5.4		0	0			0	0		
Port Stanley, Ontario			30.42	772.7	35	1.7	86	NE	10	4.5		0	0			0	0		
Quebec, Quebec			30.23	767.8	39	3.9	91	Calm	0	0		8k	2ks	NE	NE	0	0		
Saugeen, Ontario			30.50	774.7	31	— 0.6	95	NE	1	0.4		10k	0	N		0	0		
Stayner			30.49	774.4	33	0.6	89	NW	5	2.2			10n		NW	0	0		
Sydney, C. B.			30.01	762.2	33	0.6	96	NE	4	1.8			10n			0.05	1.3	Light rain	
Toronto, Ontario			30.46	773.7	39	3.9	75	N	13	5.8		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.15	765.8	39	3.9	74	NW	9	4.0		5c	0	W		0	0		
Alpena, Mich.			30.52	775.2	30	— 1.1	79	E	12	5.4		2c	5ks	E		0	0		
Atlantic City, N. J.			30.13	765.3	46	7.8	76	NW	12	5.4		0	5ks		NW	0.12	3.0		
Augusta, Ga.			30.29	769.4	52	11.1	86	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.18	766.6	66.5	19.2	59	N	9	4.0		0	0			0	0		
Barnegat, N. J.			30.11	764.8	43	6.1	75	W	4	3.6		2cs	0	W		0	0		
Benton, Montana			30.42	770.1	— 3	—19.4	100	SW	16	7.2		0	0			0.13	3.3		
Bismarck, Dakota			30.03	762.7	10	—12.2	58	NW	11	4.9		0	5s			1.20	30.5		
Boston, Mass.			29.81	757.2	37	2.8	100	NW	17	7.6			10n			1.94	49.3	Heavy rain.	
Breckenridge, Minn.			29.94	760.5	33	0.6	89	SE	10	4.5			10s			0.19	4.8		
Buffalo, N. Y.			30.41	772.4	37	2.8	80	N	4	1.8		0	0			0	0		
Burlington, Vt.			30.24	768.1	37	2.8	71	N	16	7.2		5k	5s	N		0	0		
Cairo, Ill.			30.16	766.1	60	15.6	49	S	8	3.6		5c	0	SW		0	0		
Cape Hatteras, N. C.			30.15	765.8	58	14.4	69	W	12	5.4		Haze	Haze			0	0		
Cape Henry, Va.			30.19	766.8	55	12.8	68	N	16	7.2		0	Haze			0	0		
Cape May, N. J.			30.15	765.8	47	8.3	77	NW	16	7.2		8k	0	NW		0.05	1.3		
Charleston, S. C.			30.28	769.1	55	12.8	93	W	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			29.86	758.4	7	—13.9	100	N	4	1.8			10n			0.01	0.3	Light snow	
Chicago, Ill.			30.25	768.3	44	6.7	68	E	14	6.3		0	0			0	0		
Cincinnati, Ohio			30.36	771.1	51	10.6	59	E	8	3.6		2c	0			0	0		
Cleveland, Ohio			30.43	772.9	36.5	2.5	90	N	4	1.8		10k	Sm'e	N		0	0		
Colorado Springs, Col.			29.82	757.4	28	— 2.2	77	SE	10	4.5			10s			0	0		
Corsicana, Texas			29.98	761.5	61	16.1	77	SE	11	4.9			10s			0	0		
Davenport, Iowa			30.12	765.0	43	6.1	75	E	20	8.9		5c	0	W		0	0		
Denver, Col.			29.93	760.2	24	— 4.4	61	E	5	2.2			10s			0	0		
Detroit, Mich.			30.47	773.9	35	1.7	84	NE	6	2.7		Haze	2ks			0	0		
Dodge City, Kansas			29.64	752.8	40	4.4	82	N	12	5.4		5k	0	N		0	0		
Dubuque, Iowa			30.14	765.5	42	5.6	74	S	8	3.6		0	Sm'e			0	0		
Duluth, Minn.			30.26	768.6	27	— 2.8	88	NE	48	21.5			10n			0.01	0.3	Light snow.	
Eastport, Me.			29.95	760.7	36	2.2	90	NE	20	8.9			10s		NE	0.45	11.4		
Erie, Penn.			30.41	772.4	38	3.3	90	NW	4	1.8			10s			0	0		
Escanaba, Mich.			30.35	770.9	29	— 1.7	77	NE	8	3.6			10s			0	0		
Fort Gibson, I. T.			29.90	759.4	62	16.7	61	SE	20	8.9			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.19	766.8	12	—11.1	80	N	16	7.2		0	0			0.41	10.4		
Galveston, Texas			30.05	763.3	67	19.4	79	SE	10	4.5			10ks			0	0		
Grand Haven, Mich.			30.36	771.1	39	3.9	63	E	20	8.9		5c	0	NW		0	0		
Indianapolis, Ind.			30.30	769.6	48	8.9	62	E	9	4.0		5c	0	W		0	0		
Indianola, Texas			30.01	762.2	67	19.4	74	SE	14	6.3		Haze	5s			0	0		
Jacksonville, Fla.			30.27	768.8	57	13.9	76	NE	4	1.8		0	0			0	0		
Keokuk, Iowa			29.97	761.2	47	8.3	77	E	12	5.4		5c	5s	NW		0	0		
Key West, Fla.			30.13	765.3	71.5	21.9	67	NE	18	8.0		Haze	Haze			0	0		
Kittyhawk, N. C.			30.18	766.6	55	12.8	56	NE	20	8.9		0	0			0	0		
Knoxville, Tenn.			30.31	769.9	46	7.8	92	Calm	0	0		0	Haze			0	0		
La Crosse, Wis.			30.12	765.0	42	5.6	66	S	20	8.9		5k	0	S		0	0		
Leavenworth, Kan.			29.81	757.2	59	15.0	58	S	15	6.7		0	5s			0	0		
Lexington, Ky.			30.30	769.6	38	8.9	78	E	4	1.8			2c			0	0		
Long Branch, N. J.			30.12	765.0	43	6.1	66	NW	8	3.6		2ck	Haze	N		0.07	1.8		
Louisville, Ky.			30.29	769.4	52	11.1	66	Calm	0	0		0	0			0	0		
Lynchburg, Va.			30.25	768.3	54	12.2	61	NW	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.48	774.2	29	— 1.7	77	E	8	3.6			10s			0	0		
Memphis, Tenn.			30.19	766.8	57	13.9	63	SE	1	0.4		5c	Haze			0	0		
Milwaukee, Wisconsin			30.36	771.1	36	2.2	90	E	12	5.4		2ck	0	NW		0	0		
Mobile, Ala.			30.21	767.3	53	11.8	86	S	3	1.3		5c	Haze			0	0		
Montgomery, Ala.			30.27	768.8	52.5	11.4	83	Calm	0	0		5c	Sm'e			0	0		
Morgantown, W. Virginia			30.37	771.4	43	6.1	71	N	4	1.8		0	2s			0	0		
Mt. Washington, N. H.			30.01	762.2	18	— 7.8	100	N	30	13.4			10n			0.63	16.0	Light snow.	
Nashville, Tenn.			30.22	767.6	54	12.2	73	Calm	0	0		2cs	0			0	0		
New Haven, Conn.			30.06	763.5	41	5.0	57	N	17	7.6		0	8s			0.70	17.8		
New London, Conn.			30.00	762.0	43	6.1	63	N	14	6.3			10s		N	1.25	31.7	Threatening	
New Orleans, La.			30.18	766.6	58	14.4	76	E	3	1.3		5c	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			30.15	765.8	43	6.1	65	NW	4	1.8		2c	0			0.18	4.6		
Norfolk, Va.			30.20	767.1	54.5	12.5	74	N	13	5.8		0	0			0	0		
North Platte, Neb.			29.76	755.9	22	— 5.6	72	NW	16	7.2		5c	2s	S	NW	0	0		
Omaha, Neb.			29.70	754.4	57	13.8	69	S	16	7.2			10s			0	0		
Oswego, N. Y.			30.37	771.4	37.7	3.2	80	N	5	2.2		Haze	Haze			0	0		
Peck's Beach			30.15	765.8	48	8.9	71	N	26	11.6		8k	1s	N		0	0		
Pembina, D. T.			30.06	763.5	31	— 0.6	100	SE	20	8.9			10n			0.03	0.8	Light snow.	
Philadelphia, Penn.			30.16	766.1	48	8.9	49	N	18	8.0		0	0			0	0		
Pike's Peak, C. T.			29.64	752.8	7	—13.9	100	SW				8k	0	W		0	0		
Pittsburgh, Penn.			30.38	771.6	39	3.9	81	NE	3	1.3		0	0			0	0		
Port Huron, Mich.			30.50	774.7	34	1.1	90	NE	11	4.9			10s			0	0		
Portland, Maine			29.93	760.2	35	1.7	90	N	28	12.5			10n			1.31	33.3	Heavy snow	
Portland, Or.			30.16	766.1	30	— 1.1	78	N	10	4.5		8k	0			0	0		
Punta Rassa, Fla.			30.21	767.3	60.2	15.7	82	N	9	4.0		Haze	2cs	NW	NW	0	0		
Rochester, N. Y.			30.38	771.6	40	4.4	73	N	12	5.4		Haze	5s			0	0		
Salt Lake City, Utah			29.65	753.1	29	— 1.7	78	NW	5	2.2			10s			0.26	6.6		
Sandy Hook, N. J.			30.11	764.8	40	4.4	72	NW	12	5.4		5ck	Sm'e	N		0.11	2.8		
San Diego, Cal.			29.91	759.7	52	11.1	73	SW	12	5.4		0	5ks			0	0		
San Francisco, Cal.			29.87	758.7	43	6.1	67	W	12	5.4		0	0			0	0		
Santa Fe, N. M.			29.50	749.3	41	5.0	33	SE	8	3.6		0	0			0	0		
Savannah, Georgia			30.29	769.4	56	13.3	63	W	2	0.9		0	0			0	0		
Shreveport, La.			30.12	765.0	58	14.4	87	SE	4	1.8			10s			0	0		
Springfield, Mass.			30.03	762.7	42	5.6	48	N	12	5.4			10s			0.82	20.8		
St. Louis, Mo.			30.09	764.0	56	13.3	51	SE	12	5.4		5c	0	NW		0	0		
St. Marks, Fla.			30.27	768.8	53	11.7	79	E	3	1.3		0	0			0	0		
St. Paul, Minn.			29.92	760.0	37	2.8	71	SE	24	10.7			10s			0.10	2.5		
St. Paul's Island, Alaska			30.29	769.4	33	0.6	80	WSW	6	2.7		1ck	8k	SW		0.03	0.8	Snowy	
Squan Beach, N. J.			30.11	764.8	45	7.2	54	NW	5	2.2		5k	Haze	NW		0	0		
Toledo, Ohio			30.44	773.2	38	3.3	80	NE	12	5.4		0	2s			0	0		
Tybee Island, Ga.			30.29	769.4	56	13.3	87	NW	2	0.9		0	Sm'e			0	0		
Vicksburg, Miss.			30.24	768.1	55	12.8	73	SE	3	1.3		0	5s			0	0		
Virginia City, Mon.			29.66	753.4	— 7	—21.7	67	E	8	3.6		0	0			0	0		
Washington, D. C.			30.26	768.6	49	9.4	64	NW	14	6.3		0	Haze			0	0		
Wilmington, N. C.			30.25	768.3	57	13.9	63	W	5	2.2		0	0			0	0		
Wood's Hole, Mass.			29.84	757.9	37	2.8	90	NW	24	10.7			10n			1.93	49.0	Light rain.	
Wytheville, Va.			30.10	764.5	45	7.2	68	W	2	0.9		0	0			0	0		
Yankton, D. T.			29.99	761.7	26	— 3.3	75	NW	30	13.4			10s			0.02	0.5		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.06	763.5	78	25.6		E	5	2.2		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.91	759.7	70	21.1		E				8c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.86	758.4	75	23.9	69	NE	6.0	2.7		5fc	0	NE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.17	766.3	74	23.3		Calm	0	0		0	0			0.02	0.5		James Gall.
St. Thomas, St. T., W. I.	30.19	766.8			72	22.2		NE	4	1.8		0	2k			0.06	1.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	70	21.1	79	NE	4.8	2.2		0	0			Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.82	757.4	66.0	18.9	79	WSW	3.0	1.3		4ks	1k			0.020	0.51		C. F. Allen.
Honolulu, Oahu, S. I.			29.93	760.2	60	15.6	78	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.74	755.4	59.5	15.3	88	S	8.4	3.8		0	2n		S	0.41	10.4		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.86	783.8	—16.5	— 8.6	100	NW	4	1.8		6c	Fog	S		0	0	Fog	J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	66	18.9	93	N	2.0	0.9		5c	2k	NNE		0.26	6.6		C. Partridge.
St. John's, Newfoundland			30.30	769.9	38	3.3	91	W				5k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.02	762.6	72.9	22.7	73	SE			1	3k	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			30.43	772.9	34	1.1	90	N	14	6.2			10s			0	0		H. M. Redington.
Indianola, Iowa	29.04	737.0			51	10.6		SE				4c	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 6, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.89	759.1	63.7	17.6		NW			3		2			0	0		Charnot.
Algiers			29.78	756.3	62.6	17.0	63	SW			3		10			0.173	4.4	Rain	Peter.
La Calle			29.84	757.8															Kuntz.
Tunis			29.84	757.9	68.4	20.2	57	W			3		6			0.408	11.9	Rain	Jacques.
Sfax			29.83	758.6															Chauvey.
Saïda			29.85	758.3	52.5	11.4		W SW			4		6			0	0		Grosjean.
Tebessa			29.84	758.0	56.7	13.7		N			5		2			0.354	9.0		Colin.
Geriville			29.81	757.1	52.3	11.3		NNW			2		3			0	0		Bernadach.
Laghouat			29.80	757.0	59.4	15.2	61	W			2		6			0.236	6.0	Rain	Poinsignon.
Biskra			29.82	757.5	69.3	20.7		NW			6		9			0.118	3.0	Rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.65	753.1	64.8	18.2	53	NE			2		5			0.126	3.2		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.79	756.6	63.5	17.5	73	SW			2		1			0	0		I. R. Observatory.
Eperies			29.76	755.9	57.2	14.0	57	S			3		3cs			0	0		Julius Mikolik.
Gratz			29.64	752.9	59.2	15.1	54	SSE			2		2			0	0		Andreas Rospini.
Hermannstadt			29.75	755.7	59.5	15.4	41	SE			3		7			0	0		Prof. Reissenberger.
Kremsmünster			29.60	751.8	59.7	15.4	46	NW			1					0	0		Prof. C. Wagner.
Lemberg			29.81	757.2	49.3	9.6	68	S			2		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.18	766.5	63.3	17.4	44	S			2		0			0	0		Habsuda Daniel.
Pola			29.68	753.9	54.3	12.4	94	E			1		10s			0.025	0.63		I. R. Hydrographic Office
Szegedin			29.71	754.6	56.8	13.8	51	S			4		10			0	0		Karl Stancel.
Trieste			29.70	754.3	55.8	13.2	91	Calm			0		10			0.213	5.4	Drizzling	Prof. V. Farolfi.
Vienna			29.61	752.1	66.4	19.1	40	S			1		5			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.42	747.2			55.8	13.2	53	WSW			1		7		SW	0.012	0.30		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low. r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.22	742.2	45.0	7.2		S	18	8.0			7			0.400	10.2		William Boswell.
Annanhill																			
Ardrossan			29.21	741.9	47	8.3		SSW			3		6					Drizzling	William McNeil.
Armagh Observatory			29.22	742.2	48.0	8.9		SSW	20				10					Squally	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.33	745.0	50.5	10.3		SW			3		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.23	742.4	46.0	7.8		SSW			1-3		8					Showery	J. Dreyer, for L'd Rosse
Bradford			29.35	745.5	40.1	4.5		SW			2		10					Showery	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.44	747.8	55.0	12.8		SW			3		7						H. Todd.
Cape Town, (Cape Colony)			30.04	763.0	73.0	22.8		SE			5		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.07	738.4			77.0	25.0	38	SE	21	9.4			6						Th Staff, for E. J. Stone.
Cardington			29.44	747.8	56.0	13.3		SW					3						John McLaren.
Carlisle			29.30	744.2	48.2	9.0		S					4			0.04	1.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.46	748.3	53.4	11.9		SW			3		10					Showery	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.90	759.4	82.2	27.9		SE			1		5						Sgt. W. F. Hopkins
Dartmoor			29.60	751.8	41.5	5.3		SW			6		10						R. E. Power.
Donaghadee			29.19	741.4	50	10.0		SW			4		10						J. Mac Gowan, Jr.
Dover			29.54	750.3	47	8.3		SW			4		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.35	745.5	48.2	9.0		S E	2.0	0.9			5					Mist	Thomas Mackereth.
Falmouth Observatory			29.51	749.5	49.7	9.8		WS	28	12.5			7						The Staff.
Fort Napier, (Natal)			30.07	763.8	67.6	19.8		S			4		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.16	740.7	49	9.4		W			3		10					Rain	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.98	761.5	64.4	18.0		WNW			5		9						Sergt. E. G. Baker.
Glasgow Observatory			29.20	741.7	46.1	7.8		SW			4		7					Squally	James Gray.
Great Yarmouth			29.46	748.3	49	9.4		SW			3		6						G. T. Watson.
Greenwich Royal Obs.			29.49	749.0	51.0	10.6		SW			1		7						The Staff, for G. B. Airy.
Guernsey			29.59	751.6	52.0	11.1		SW			3		4					Showery	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.36	745.7	38.7	3.7		WSW					10					Rain	F. J. Rice, for L. J. Cross-
Halifax, (Nova Scotia)			29.97	761.2	30.0	— 1.1		N			6		5						Corp'l J. Y. Thompson.
Helston			29.49	749.0	53	11.7		W			4		4c					Showery	Dr. W. B. Mavle.
Holyhead			29.31	744.5	49	9.4		SSW			4		2						John Tilston.
Hull Park																			
Kew Observatory			29.48	748.8	52.4	11.3		SSW	22	9.8			6						The Staff.
Kingstown			29.29	744.0	48	8.9		S			4		8						George Mitchell.
Lampeter																			
Leicester Museum			29.43	747.5	49.5	9.7		SW			2		8						William J. Harrison
Llandudno			29.32	744.7	52.1	11.2		WSW			2		4						Dr. James Nicol.
Malta, (Mediterranean)			29.82	757.4	65.0	18.3		NW			1		2k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.13	739.9	48	8.9		SW			1		5						William D. Penny.
Nassau, (Bahamas)			30.18	766.8	71.2	21.8		N			5		6						Surg.-Maj. J. Jameson
North Shields			29.32	744.7	43	6.1		SW			3		7						John Wm. Irvine.
Nottingham			29.40	746.7	48.8	9.3		SW			2		10ks		SW			Hail	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.38	746.2	53.8	12.1		SW			4		7						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.43	747.5	52	11.1		SW			2		7						J. Lucas, for R. Main.
Plymouth			29.46	748.3	51	10.6		W			3		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.29	736.6	44	6.7		WSW			4		8					Showery	W. Kennedy.
Saint Ann's Head			29.40	746.7	48	8.9		SW			3		10					Showery	John C. Walker.
Saint Helier, (Jersey)			29.59	751.6	52.4	11.3		W			4		8						A. P. Amy.
Sandwick Manse(Orkneys)			29.08	738.6	45.7	7.6		S	25	11.2			7						Rev. C. Clouston
Scarborough			29.35	745.5	51.1	10.6		SSW			2		7						F. Shaw.
Scutari, (Turkey)			29.93	760.2	58.4	14.2		NNE			10		10						Sergt. W. H. Lyne.
Sheffield			29.36	745.7	52.2	11.2		WSW			4		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.82	757.4	57.4	13.9		WSW			5		4			1.75	56.0	Rain	Rev Francis Redford.
Somerleyton, (Lowestoft)			29.52	749.8	52.9	11.6		SSW			2		6						Rev. C. J. Steward.
Stonyhurst Observatory			29.34	745.2	45.0	7.2		SW			2		8					Threatening	The Staff.
Stornoway, Lewis C. (Hebr.)			29.06	738.1	44	6.7		WSW			3		10					Rain	John Smith.
Strathfield Turgiss			29.48	748.8	50.1	10.1		S			1		8ks						Rev Charles H. Griffith
Streatley Vicarage			29.48	748.8	59.1	15.1		SW			5		7						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.13	739.9	43	6.1		SSW			7		8						William Lawrence.
Taunton College																			
Thurso			29.06	738.1	49	9.4		SSW			4		4						John Trotter.
Truro Royal Institution			29.50	749.3	53	11.7		SW			8		6						W Newcombe.
Valencia Observatory			29.28	743.7	42.8	6.1		WSW	28	12.5			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.54	750.3	50.8	10.4		SSW			5		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.60	751.9	50.2	10.1	80	SSE			2		2						
Fanöe			29.61	752.0	46.0	7.8	88	SW			2		5						
Godthaab, (Greenland)			29.93	760.3	11.7	—11.3		NE			4		5						
Stykkisholm, (Iceland)			29.49	749.1	28.0	— 2.2	96	NE			9		5						
Thorshavn, (Faröe)			29.81	757.7	42.6	5.9	83	Calm			0		8					Rain	
Vestervig			29.57	751.2	47.8	8.8	88	S			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.66	753.4	62.2	16.8	73						5k						Normal School.
Alençon																			Normal School.
Amiens			29.61	752.0	57.2	14.0	78	WSW			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.66	753.4	55.4	13.0	47	WSW			3		8		WSW	0.010	0.25		Normal School.
Besançon			29.77	756.1	57.2	14.0	65	E			2		8		NW	0	0		Normal School.
Bourges			29.69	754.2	57.7	14.4	68	SSW			2		2		SSW	0	0		Normal School.
Brest			29.56	750.8	56.7	13.7	66	SW			3		5		SW	0.059	1.50		Naval Observatory.
Caen			29.60	751.9	55.2	12.9	57	SSW			2		2		SSW	0.142	3.6		Normal School.
Carcassonne																			
Chartres			29.64	752.8	54.5	12.5		W			6		5		NW	0.197	5.0		Normal School.
Chaumont			29.67	753.7	54.7	12.6		WSW			2		1		WSW	0.059	1.5		Normal School.
Le Mans			29.73	755.2	49.5	9.7	72	SW			2		5		SW	0.315	8.0		Normal School.
Mirecourt			29.61	752.2	56.1	13.4	52	NNE			2		5		NNE	0	0		Normal School.
Orleans																			Normal School.
Paris			29.65	753.2	56.1	13.4		WSW			3		5		SW	0.008	0.2		National Observatory.
Parthenay			29.64	752.0	50.2	10.1	74	W			2		5		SW	0	0		Normal School.
La Roche sur Yon			29.68	753.9	51.4	10.8	80	NW			2		5		NE	0.024	0.6		Normal School.
Rouen			29.60	751.9	56.8	13.8	59	SE			6		2		W	0.079	2.0		Normal School.
Saint Lo			29.68	753.8	56.7	13.7	59	W			3		2		W	0.039	1.0		Normal School.
Villefranche																			Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)					40.1	4.5	78	SSW	3.8	1.7			8		SSW	0.366	9.3		Père Pascall.
Mont-Louis	24.48	621.7			29.65	753.2	54.1	12.3	42	SW	5.8	2.6	7k		SW	0	0		—. Falguère.;
Montsouris (near Paris)			29.65	753.2	54.9	12.7	82	NE	5.6	2.5			8		W	0.528	13.4		Mr. Davy.
Perpignan	29.50	749.2			29.66	753.3	58.8	14.9	36	SW		2	5			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.69	754.1	55.4	13.1	55	SW			1		8		NW	0.032	0.8		C. Marquet.
Versailles, (near Paris)			29.65	753.0	58.6	14.8	44	SW			3		7			0.066	1.67		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.35	770.8	45.3	7.8	44	NNE	5.4	2.4			Fog			0	0	Fog	H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.60	751.9	59.7	15.4	59	SW			3		6			0	0		Prof. Hoh.
Berlin			29.61	752.2	65.3	18.5	34	S			1		2			0	0		Prof. Arndt.
Breslau			29.69	754.1	60.4	15.8	49	S			5		6			0	0		Dr. P. Neugebauer.
Carlsruhe			29.67	753.7	57.2	14.0	69	SW			2.5		10			0	0		A. Senz.
Cassel			29.53	750.0	61.7	16.5	53	S			2		4			0	0		Dr. H. Möhl.
Cologne			29.68	753.8	57.6	14.2	59	W			3		6			0	0		Dr. Garthe.
Emden			29.64	752.8	57.4	14.1	51	SW			2		2			0	0		Prof. Prestel.
Frankfort on the Main			29.63	752.7	62.6	17.0	39	SSW			2		4			0	0		Physical Society.
Friedrichshafen			29.66	753.3	57.4	14.1	47	W					6			0	0		M. Wilhelm.
Hamburg			29.66	753.4	52.9	11.5	72	W			3		8			0	0		W. Reinert.
Kiel			29.65	753.0	51.6	10.9	79	W			2		9			0	0		Prof. G. Karsten.
Königsberg			29.76	756.0	60.8	16.0	67	NE			2		6			0.012	0.3		Prof. E. Luther.
Köslin			29.82	757.4	60.1	15.6		SE			2		3			0	0		Dr. T gert.
Leipsic			29.61	752.0	64.4	18.0	41	NW			1		2			0	0		Prof. Bruhns.
Münster			29.64	752.9	58.3	14.6	76	SW			3		0			0	0		Prof. E. Heis.
Posen			29.65	753.1	63.7	17.6	48	S			7		2			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.69	754.0	57.6	14.2	56	N					10			0.244	6.2		Hartwig and Tülk.
Stuttgart			29.65	753.1	57.6	14.2	58	SW					8			0	0		Mr. Würth.
Thorn			29.68	753.9	63.5	17.5	47	SE			5		4			0	0		Dr. [illegible]senbalg.
Treves, (Trier)			29.63	752.5	57.4	14.1	41	SW			6		6			0	0		Prof. Flesch.
Wustrow			29.61	752.2	49.1	9.5	71	W			2		7			0	0		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.77	756.1	49.6	9.8	87	NNE			2		10	N		0.173	4.4		
Mondovi			29.76	755.9	48.9	9.4	70	NNW			2		10			0.106	2.7	Rain	
Genoa			29.71	754.7	59.4	15.[illegible]	53	NE	3.1	1.4			4	NE		0.012	0.3		
Pavia			29.75	755.6	52.3	11.3	81	NE			1		9	E		0.039	1.0		
Verona			29.69	754.1	59.4	15.2	68	E			4		10			0	0		
Padua			29.68	753.9	56.8	13.8	73	N	0	0			6	WNW		0	0		
Parma																			
Bologna			29.77	756.2	54.3	12.4	39	W			4		7	N		0	0		
Livorno			29.70	754.4	58.1	14.5	75	W	1.8	0.8			4			0.079	2.0		
Urbino			29.72	754.8	52.2	11.2	73	N			6		10			0.079	2.0		
Ancona			29.68	753.9	55.4	13.0	71	SE			2		5			0	0		
Siena			29.69	754.0	55.2	12.9	82	NW	0.7	0.3			9	NW		0.059	1.5		
Rome			29.70	754.4	64.8	18.2	69	WSW	8.7	3.9			7	W		0.027	0.7		
Naples, O.U			29.71	754.6	65.5	18.6	77	SE			2		9	SSW		0.059	1.5		
Lecce			29.63	752.5	58.5	14.7	93	SW	15.0	6.7			8			0	0		
Cosenza			29.75	755.0	61.7	16.5	69	WNW			1		10			0.161	4.1	Rain	
Catania, (Sicily)			29.77	756.3	61.2	16.2	85	SE			2		2	NW		0	0		
Riposto																			
Palermo			29.71	754.5	61.7	16.5	61	WNW			4		5	NNW		0	0		
Sub-Series.																			
Naples, S. R.	29.19	741.5			55.9	13.3	95	SW			2-4		10k	WSW		0.358	9.1	Light rain	Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.62	752.3	51.3	10.7		SW			4								
Groningen			29.54	750.3	54.0	12.2		SW			4								
Helder			29.56	750.9	48.2	9.0		SSW			4								
Utrecht			29.55	750.6	57.0	13.9		SSW			4		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.39	746.5	46.4	8.0	72	SSW	25.9	11.6			10			0	0		
Christiania			29.55	750.6	49.3	9.6	64	SE	3.4	1.5			10			0.004	0.1		
Tromsö			29.74	755.6	30.6	— 0.8	77	Calm			0		0			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.64	752.8			58.8	14.9	57	WNW	15.0	6.7			7						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.72	754.9	60.4	15.8	55	SE	7	3			3						Astronomical Obs.
Wilna			29.87	758.8	51.6	10.9	63	Calm	0	0			0						Astronomical Obs.
Dorpat			29.98	761.4	39.9	4.4	84	WSW	2	1			10						Physical Cabinet.
St. Petersburg			29.94	760.4	34.2	1.2	87	NW	4	2			10						Central Physical Obs.
Kieff			30.14	765.6	37.2	2.9	86	NW	9	4			10						Physical Cabinet.
Nikolaiev			30.17	766.4	45.5	7.5	60	S	8	3.5			0						
Kertch			30.21	767.3	49.3	9.6	55	SE	4	2			1						Lagorio.
Moscow			30.01	762.3	44.4	6.9	69	W	8	3.5			7						Meteorological Obs.
Lugan			30.08	763.9	38.1	3.4	70	WSW	13	6			4						Meteorological Obs.
Archangel			29.96	760.9	41.0	5.0	84	Calm	0	0			10						Ogorodnikof.
Tiflis			30.09	765.4	54.7	12.6	29	NW	8	3.5			7						Physical Obs.
Astrakhan			29.19	766.7	41.9	5.5	65	WSW	8	3.5			10						Sebastianof.
Kasan			29.85	758.1	35.6	2.0	94	NNE	4	2			10						Physical Cabinet.
Orenburg			30.00	761.9	46.6	8.1	94	E	10	4.5			10						Tschernischef.
Ekaterinburg			30.11	764.7	39.2	4.0	87	E	8	3.5			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.52	775.3	36.5	2.5	54	Calm	0	0			4						Meteorological Obs.
Yeniseisk			30.23	767.8	31.5	— 0.3	69	NW	10	4.5			10						Marks.
Irkutsk																			Usolzef.
Oorga			30.21	767.3	14.5	— 9.7	75	NW	31	14			10						Mossin.
Peking, (China)			30.18	766.5	46.2	7.9	34	SSW	8	3.5			0						Physical Observatory
Nertchinsk			30.06	763.5	14.2	— 9.9	49	N	8	3.5			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.79	756.6	53.1	11.7	50	NW	17.9	8.0		0	6			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.90	759.5	36.0	2.2	79	S			1		10			0.13	3.2		
Hernosand			29.85	758.1	34.2	1.2	96	S			2		10			0	0	Foggy	
Stockholm			29.73	755.2	41.0	5.0	76	E			3		6			0	0		
Wisby			29.83	757.6	41.4	5.2	81	ESE			1		4			0	0		
Sub-Series.																			
Upsala			29.84	757.9	41.7	5.4	75	ESE			4		3		SSE				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.28	718.3			53.1	11.7	68	ESE			2		10			0	0	Rain	The Observatory.
Zurich	28.02	711.6			61.2	16.2	47	W			1		8			0	0	Rain	The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —5.91mm.; Thermometer, +1°.1 C.; Relative Humidity, +10 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.04	763.0	63.3	17.4	71	W			2		5						
Constantinople			29.98	761.5	57.6	14.2	58	NNE	5.6	2.5			10		WNW	0	0		
Fao, (Persian Gulf)			30.07	763.7	66.2	19.0		NW			4		0						
Salonica			29.78	756.5	63.1	17.3		SE			1		10					Rain	
Valona			29.61	752.1	59.9	15.5		S			2		10					Rain	
Varna			30.04	763.0	50.0	10.0		SW			2		10						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

NOTE.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.53	775.4	28	— 2.2		NE	6	2.7			10s		NE	0	0		
Chatham, N. B.			30.08	764.0	24	— 4.4	75	NW	22	9.8			0			0.16	4.1		
Charlottetown, P. E. Island			29.99	761.7	26	— 3.3	73	N	23	10.3			10s			0.49	12.4		
Fort Garry, Manitoba			30.29	769.4	22	— 5.6	93	E	5	2.2			8ks			0.16	5.1		
Halifax, N. S.			29.90	759.4	30	— 1.1	86	N	12	5.4		0	2cs			0.641	16.26		
Kingston, Ontario			30.52	775.2	29	— 1.7	89	NE	6	2.7			10ks		NW	0	0		
Montreal, Quebec			30.52	775.2	27	— 2.8	41	N	8	3.6		0	2ks			0	0		
Ottawa, Ontario			30.50	774.7	26	— 3.3	63	N	8	3.6		5k	5s	N		0	0		
Parry Sound, Ontario			30.40	772.1	34	1.1	62	E	15	6.7		2cs	5ks	W	W	0	0		
Port Dover, Ontario			30.33	770.4	37	2.8	71	NE	4	1.8		10k	0	W		0	0		
Port Stanley, Ontario			30.29	769.4	38	3.3	72	E	15	6.7		5ck	0	W		0	0		
Quebec, Quebec			30.42	772.7	20	— 6.7	70	NW	4	1.8		0	0			0	0		
Saugeen, Ontario			30.30	769.6	35	1.7	85	E	9	4.0			10n		SE	0	0		
Stayner			30.37	771.4	34	1.1	60	SE	12	5.4			8n		NW	0	0		
Sydney, C. B.			29.78	756.4	34	1.1	70	N	11	4.9		8k	0	NW		0.25	6.3		
Toronto, Ontario			30.40	772.1	34	1.1	63	E	16	7.2		2ck	Haze	W		0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.43	772.9	34	1.1	61	N	8	3.6		5cs	0	W		0	0		
Alpena, Mich.			30.24	768.1	34	1.1	70	E	18	8.0		8ck	2s	E		0	0		
Atlantic City, N. J.			30.38	771.6	42	5.6	66	N	8	3.6		0	0			0	0		
Augusta, Ga.			30.41	772.4	58	14.4	53	Calm	0	0		5c	0	NE		0	0		
Baltimore, Md.			30.41	772.4	46	7.8	40	NE	4	1.8		0	Sm'e			0	0		
Barnegat, N. J.			30.37	771.4	41	5.0	63	NW	8	3.6		0	Haze			0	0		
Benton, Montana			30.31	769.9	— 3	—19.4	100	SW	4	1.8		0	0			0	0		
Bismarck, Dakota			30.21	767.3	10	—12.2	79	NW	10	4.5			10s			0	0		
Boston, Mass.			30.31	769.9	36.5	2.4	42	NW	14	6.2		0	0			0.35	8.9		
Breckenridge, Minn.			30.20	767.1	24	— 4.4	88	NW	2	0.9			10s			0	0		
Buffalo, N. Y.			30.34	770.6	38	3.3	63	E	8	3.6		2c	Sm'e	NW		0	0		
Burlington, Vt.			30.49	774.4	25	— 3.9	62	N	7	3.1		2ck	0			0	0		
Cairo, Ill.			30.23	767.8	62	16.7	50	Calm	0	0		5c	Haze	W		0	0		
Cape Hatteras, N. C.			30.31	769.9	48	8.9	77	NE	19	8.5		Haze	0			0	0		
Cape Henry, Va.			30.40	772.1	50	10.0	58	NE	16	7.2		0	0			0	0		
Cape May, N. J.			30.40	772.1	43	6.1	58	N	8	3.6		0	0			0	0		
Charleston, S. C.			30.39	771.9	56	13.3	81	NE	8	3.6		2c	Sm'e			0	0		
Cheyenne, W. T.			29.80	756.9	13	—10.6	100	E	4	1.8			10n			0.01	0.3	Light snow.	
Chicago, Ill.			30.07	763.8	55	12.8	62	SW	9	4.0		5cs	Haze			0	0		
Cincinnati, Ohio			30.24	768.1	54	12.2	61	E	2	0.9		Haze	Sm'e			0	0		
Cleveland, Ohio			30.22	767.6	45.3	7.4	68	SE	12	5.4		5ck	Sm'e	NW		0	0		
Colorado Springs, Col.			29.78	756.4	26	— 3.3	75	W	4	1.8			10s			0.03	0.8		
Corsicana, Texas			30.03	762.7	65	18.3	83	SE	12	5.4		10k	0	S		0	0		
Davenport, Iowa			30.07	763.8	53	11.7	86	Calm	0	0			10s			0	0		
Denver, Col.			29.87	758.7	17	— 8.3	67	N	8	3.6			10s			0	0		
Detroit, Mich.			30.21	767.3	42	5.6	76	E	4	1.8		5c	Haze			0	0		
Dodge City, Kansas			29.64	752.8	33	0.6	80	N	20	8.9			10s			0	0		
Dubuque, Iowa			30.07	763.8	52	11.1	79	Calm	0	0			10s			0	0		
Duluth, Minn.			30.08	764.0	36	2.2	90	NE	5	2.2			10n			0.22	5.6	Light rain.	
Eastport, Me.			30.17	766.3	7	— 2.8	78	N	18	8.0		0	0			0.20	5.1		
Erie, Penn.			30.28	769.1	44	6.7	67	SE	4	1.8		2c	8ks	E		0	0		
Escanaba, Mich.			30.12	765.0	35	1.7	70	E	10	4.5		5c	0	E		0	0		
Fort Gibson, I. T.			30.00	762.0	64	17.8	62	SE	11	4.9		5ck	5ks	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.35	770.9	17	— 8.3	75	N	14	6.2			8s			0	0		
Galveston, Texas			30.08	764.0	67	19.4	94	SE	10	4.5		0	0			0	0		
Grand Haven, Mich.			30.12	765.0	45	7.2	68	SE	5	2.2			10s			0	0		
Indianapolis, Ind.			30.18	766.6	57	13.9	52	SE	4	1.8		5c	Sm'e	W		0	0		
Indianola, Texas			30.04	763.0	67	19.4	94	SE	9	4.0		5ck	2ck	SW		0	0		
Jacksonville, Fla.			30.30	769.6	61	16.1	70	N	4	1.8		5ck	0	W		0	0		
Keokuk, Iowa			30.04	763.0	57	13.9	63	S	3	1.3		5c	Haze	W		0	0		
Key West, Fla.			30.19	766.8	71.4	21.9	62	NE	20	8.9		5ck	Haze	NE		0	0		
Kittyhawk, N. C.			30.38	771.6	46	7.8	84	NE	23	10.3		0	0			0	0		
Knoxville, Tenn.			30.34	770.6	53	11.7	73	Calm	0	0		0	Sm'e			0	0		
La Crosse, Wis.			30.06	763.5	48	8.9	78	W	6	2.7			10s			0	0		
Leavenworth, Kan.			30.10	764.5	41	5.0	74	N	4	1.8			10s			0	0		
Lexington, Ky.			30.26	768.6	60	15.6	48	S	12	5.4		8c	0			0	0		
Long Branch, N. J.			30.29	771.9	46	7.8	47	NW	6	2.7		0	Haze			0	0		
Louisville, Ky.			30.23	767.8	59	15.0	65	Calm	0	0		5k	0			0	0		
Lynchburg, Va.			30.44	773.2	46	7.8	76	NE	1	0.4		2c	Haze			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.12	765.0	38	3.3	81	E	4	1.8		8cs	0	W		0	0		
Memphis, Tenn.			30.26	768.6	61	16.1	70	SE	1	0.4		2cs	Sm'e			0	0		
Milwaukee, Wisconsin			30.09	764.3	43	6.1	91	W	4	1.8			Fog			0	0	Fog	
Mobile, Ala.			30.26	768.6	58	14.4	87	Calm	0	0		5c	Haze			0	0		
Montgomery, Ala.			30.32	770.1	58.5	14.7	82	Calm	0	0		5c	Haze			0	0		
Morgantown, W. Virginia			30.21	767.3	41	5.0	77	Calm	0	0		8c	Fog	W		0	0		
Mt. Washington, N. H.			30.10	764.5	12	—11.1	42	N	36	16.1		0	0			0.02	0.5		
Nashville, Tenn.			30.28	769.1	60	15.6	70	Calm	0	0		2c	2s	W		0	0		
New Haven, Conn.			30.33	770.4	41	5.0	33	N	14	6.2		3c	0	N		0	0		
New London, Conn.			30.32	770.1	43	6.1	36	N	10	4.5		2c	0	W		0	0		
New Orleans, La.			30.22	767.6	62	16.7	88	E	3	1.3		2ck	Fog	W		0	0		
Newport, R. I.																			
New York, N. Y.			30.38	771.6	40	4.4	47	N	14	6.2		2c	0	W		0	0		
Norfolk, Va.			30.40	772.1	47.5	8.6	59	NE	9	4.0		0	0			0	0		
North Platte, Neb.			29.87	758.5	20	— 6.7	70	NE	12	5.4			10ks		N	0.03	0.8		
Omaha, Neb.			30.25	768.3	31	— 0.6	89	N	12	5.4			10s			0	0		
Oswego, N. Y.			30.47	773.9	30.8	— 0.7	68	NNE	8	3.6		Haze	3ks			0	0		
Peck's Beach			30.41	772.4	43	6.1	66	N	10	4.5		0	0			0	0		
Pembina, D. T.			30.23	767.8	27	— 2.8	88	NE	4	1.8			10s			0.03	0.8		
Philadelphia, Penn.			30.4	772.4	42	5.6	42	N	4	1.8		0	0			0	0		
Pike's Peak, C. T.			29.60	751.8	4	—15.6	100	NW	36	16.1		0	5s			0.10	2.5		
Pittsburgh, Penn.			30.32	770.1	38	3.3	80	Calm	0	0						0	0	Dense smoke	
Port Huron, Mich.			30.22	767.6	41	5.0	64	SE	9	4.0		Haze	2s			0	0		
Portland, Maine			30.33	770.4	34	1.1	43	N	12	5.4		0	0			0.12	3.0		
Portland, Or.			30.28	769.1	29	— 1.7	66	NE	2	0.9		Haze	Haze			0	0		
Punta Rassa, Fla.			30.26	768.6	66	18.9	61	NE	12	5.4		5cs	Sm'e			0	0		
Rochester, N. Y.			30.43	772.9	33	0.6	61	NE	12	5.4		2c	0	E		0	0		
Salt Lake City, Utah			29.50	749.3	33	0.6	61	E	9	4.0			10s			0.16	4.1		
Sandy Hook, N. J.			30.36	771.1	41	5.0	56	N	12	5.4		8c	Haze	N		0	0		
San Diego, Cal.			30.01	762.2	46	7.8	75	N	12	5.4			10n			0	0	Threatening	
San Francisco, Cal.			30.02	762.5	41	5.0	53	NW	8	3.6		0	0			0.06	1.5		
Santa Fe, N. M.			29.48	748.8	39	3.9	38		16	7.2		0	0			0	0		
Savannah, Georgia			30.36	771.1	61	16.1	61	NE	6	2.7		8c	0			0	0		
Shreveport, La.			30.16	766.1	65	18.3	83	SE	8	3.6			10s			0	0		
Springfield, Mass.			30.37	771.4	41	5.0	33	NE	8	3.6		0	0			0	0		
St. Louis, Mo.			30.14	765.5	60	15.6	49	S	12	5.4		2c	0			0	0		
St. Marks, Fla.			30.30	769.6	56	13.3	93	S	2	0.9		10cs	0	W		0	0		
St. Paul, Minn.			30.02	762.5	34	1.1	90	W	2	0.9			10s			0.05	1.3		
St. Paul's Island, Alaska			30.29	769.4	33	0.6	80	NW	3	1.3		10ck	1k			0.02	0.5		
Squan Beach, N. J.			30.36	771.1	42	5.6	48	N	5	2.2		0	Haze			0	0		
Toledo, Ohio			30.22	767.6	46	7.8	76	E	4	1.8		5g	0	SW		0	0		
Tybee Island, Ga.			30.34	770.6	62	16.7	70	NE	12	5.4		5c	0			0	0		
Vicksburg, Miss.			30.29	769.4	59	15.0	81	SE	12	5.4		0	2s			0	0		
Virginia City, Mon.			29.52	749.8	— 5	—20.6	66	NE	22	9.8			10s			0	0		
Washington, D. C.			30.42	772.7	46	7.8	54	NE	4	1.8		0	Sm'e			0	0		
Wilmington, N. C.			30.38	771.6	52	11.1	53	NE	8	3.6		2cs	Haze	NE		0	0		
Wood's Hole, Mass.			30.31	769.9	39	3.9	55	NW	15	6.7		0	0			0.42	10.7		
Wytheville, Va.			30.24	768.1	42	5.6	74	Calm	0	0		0	0			0	0		
Yankton, D. T.			30.27	768.8	23	— 5.0	70	NW	16	7.2			10s		NW	0.01	0.3		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	80	26.7		NE	5	2.2		5c	5ks			0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.94	760.5	73	22.8		NE				5pc	2c	NE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.92	760.0	75	23.9	72	SE	7.2	3.2		2fc	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.22	767.6	74	23.3		Calm	0	0		0	1ks			0	0		James Gall.
St. Thomas, St. T., W. I.	30.20	767.1			73	22.8		S	2	0.9		0	2k			0.10	0.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.90	759.4	72	22.2	75	NNE	6.0	2.7		0	2k			Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.80	756.9	61	16.1	72	WNW	1.6	0.7		2cs	8kn	SW		0.045	0.13	Showery	C. F. Allen.
Honolulu, Oahu, S. I.			29.98	761.5	59	15.0	76	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.84	757.9	58.5	14.7	70	SE	2.4	1.1		0	0			0.15	3.8		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.58	776.7	0.0	−17.8	100	E	8	3.6		8k	0	W		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.00	763.5	64	17.8	93	NW	25	11.2		0	5k			0	0		C. Partridge.
St. John's, Newfoundland			29.61	752.1	42	5.6	100	SE				Haze	Haze			0.17	4.3		John Delaney.
St. John's, Porto Rico, W. I.			30.03	762.7	77.0	25.0	67	SW			1	0	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			30.24	768.1	44	6.7	83	S	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.22	742.2			40	4.4		NW					10n			0.05	1.3		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 7, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.85	758.1	64.8	18.2		NW			2		1			0	0		Charnot.
Algiers			29.98	761.4	64.4	18.0	68	W			3		2			0	0		Peter.
La Calle			29.84	758.0															Kuntz.
Tunis			29.83	757.6	60.4	15.8	69	WNW			4		4			0.543	13.8	Rain	Jacques.
Sfax			29.77	756.1															Chauvey.
Saida			29.82	757.4	56.1	13.4		NW			3		2			0	0		Grosjean.
Tebessa			29.79	756.6	56.5	13.6		N			5		2			0	0		Colin.
Geriville			29.76	756.0	51.4	10.8		NW			4		3			0	0		Bernadach.
Laghouat			29.75	755.6	59.9	15.5	36	NW			3		4			0	0		Poinsignon.
Biskra			29.76	755.8	69.8	21.0		NW			5		2			0.039	1.0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.61	752.6	59.9	15.5	65	Calm			0		4			0.224	5.7		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.68	753.9	45.5	7.5	86	NE			3		10			0	0		I. R. Observatory.
Eperies			29.65	753.0	50.4	10.2	79	Calm			0		10ck			Blank	Blank	Rain	Julius Mikolik.
Gratz			29.62	752.4	52.0	11.1	83	NNW			2		8			0	0		Andreas Rospini.
Hermannstadt			29.63	752.6	52.9	11.6	59	SE			1		9			0.012	0.30		Prof. Reissenberger.
Kremsmünster			29.45	747.9	59.0	15.0	49	ENE			2					0	0		Prof. C. Wagner.
Lemberg			29.74	755.3	41.0	5.0	79	S			3		9			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.67	753.6	51.4	10.8	86	Calm			0		10			0.267	6.77	Rain	Habzsuda Daniel.
Pola			29.65	753.2	54.5	12.5	88	SE			1		10			0.209	5.3		I. R. Hydrographic Office
Szegedin			29.62	752.4	47.5	8.6	95	SE			1		10			0.291	7.4		Karl Stancel.
Trieste			29.65	753.1	54.5	12.5	99	NW			1		10			0.406	10.3	Drizzling	Prof. V. Farolfi.
Vienna			29.60	751.8	53.6	12.0	67	SSE			2		10			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.25	743.0			55.2	12.9	58	SSW			2		9		SSW	0.002	0.05		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.47	748.5	43.6	6.4		SE	18	8.0			9			0	0		William Boswell.
Annanhill																			
Ardrossan			29.40	746.7	47	8.3		WSW			2		3						William McNeil.
Armagh Observatory			29.2	747.3	44.0	6.7		W	3	1.3			7						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.36	745.7	48.0	8.9		N			1		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.42	747.3	45.3	7.4		WNW			1-3		7						J. Dreyer, for L'd Rosse
Bradford			29.35	745.5	44.8	7.1		W			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.40	746.7	46.1	7.8		ENE			1		10					Rain	H. Todd.
Cape Town, (Cape Colony)			29.96	761.0	71.0	21.7		NW			1		4						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.00	762.0			77.0	25.0	40	S	17	7.6			1						The Staff, for E. J. Stone.
Cardington			29.40	746.7	50.0	10.0		W					6						John McLaren.
Carlisle			29.40	746.7	49.4	9.7		S					8			0.04	1.0		T. Bell, for J. Cartmell.
Chatham, School M. E.			29.38	746.2	46.4	8.0		WSW			1		10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	80.6	27.0		NE			1		9						Sgt. W. F. Hopkins
Dartmoor			29.45	748.0	36.5	2.5		SW			1		10					Drizzling	R. E. Power.
Donaghadee			29.37	746.0	49	9.4		ESE			1		0						J. Mac Gowan, Jr.
Dover			29.38	746.2	47	8.3		Calm			0		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.36	745.7	52.3	11.3		SSE	0.8	0.4			5					Mist	Thomas Mackereth.
Falmouth Observatory			29.36	745.7	46.1	7.8		WNW	25	11.2			10						The Staff.
Fort Napier, (Natal)			30.16	766.1	63.0	17.2		E			3		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.49	749.0	50	10.0		NW			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.14	765.5	65.5	18.3		WNW			5		4						Sergt. E. G. Baker.
Glasgow Observatory			29.39	746.5	43.6	6.4		SSW			1		7					Haze	James Gray.
Great Yarmouth			29.41	747.0	46	7.8		SSE			3		3					Haze	G. T. Watson.
Greenwich Royal Obs.			29.40	746.7	50.2	10.1		WSW			1		9						The Staff, for G. B. Airy.
Guernsey			29.44	747.8	46.5	8.1		WSW			4		8					Squally	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.33	745.0	47.0	8.3		SW					10					Mist	F. J. Parke, for L. J. Crossley.
Halifax, (Nova Scotia)			30.22	767.6	28.0	— 2.2		N			3		9						Corp'l J. Y. Thompson.
Helston			29.34	745.2	48	8.9		W			6		8					Rain & snow	Dr. W. B. Mavle.
Holyhead			29.37	746.0	44	6.7		NNE			3		3						John Tilston.
Hull Park																			
Kew Observatory			29.40	746.7	48.1	8.9		W	6	2.7			9						The Staff.
Kingstown			29.41	747.0	41	5.0		ESE			2		10					Drizzling	George Mitchell.
Lampeter																			
Leicester Museum			29.40	746.7	48.0	8.9		SW			1		8						William J. Harrison
Llandudno			29.36	745.7	45.4	7.4		NNE			2		2						Dr. James Nicol.
Malta, (Mediterranean)			29.76	755.9	58.0	14.4		NW			1		8						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.41	747.0	47	8.3		ESE			1		8						William D. Penny.
Nassau, (Bahamas)			30.20	769.4	72.0	22.2		N			5		5						Surg.-Maj. J. Jameson.
North Shields			29.40	746.7	44	6.7		SE			2		8						John Wm. Irvine.
Nottingham			29.39	746.5	51.0	10.6		WSW			1		10kd		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.36	745.7	47.2	8.4		S			0-1		7					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.38	746.2	49	9.4		SW			1		7						J. Lucas, for R. Main.
Plymouth			29.36	745.7	47	8.3		S			1		10					Showery	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.39	746.5	46	7.8		WNW			5		5						W. Kennedy.
Saint Ann's Head			29.31	744.5	44	6.7		NW			2		6					Showery	John C. Walker.
Saint Helier, (Jersey)			29.45	748.0	51.2	10.7		W			2		2						A. P. Amy.
Sandwick Manse (Orkneys)			29.52	749.8	45.8	7.7		SE	30	13.4			2						Rev. C. Clouston
Scarborough			29.39	746.5	44.2	6.8		N			2		10					Rain	F. Shaw.
Scutari, (Turkey)			29.79	756.7	69.8	21.0		SW			1		3						Sergt. W. H. Lyne.
Sheffield			29.36	745.7	51.0	10.6		SE			1		7			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.40	746.7	48.3	9.1		N			1		3			0.015	0.4		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.46	748.3	51.7	10.9		ESE			2		8						Rev. C. J. Steward.
Stonyhurst Observatory			29.38	746.2	47.1	8.4		E			1		5					Haze	The Staff.
Stornoway, Lewis C. (Hebr)			29.39	746.5	47	8.3		ENE			4		4						John Smith.
Strathfield Turgiss			29.32	744.7	54.5	10.3		W			1		3k						Rev Charles H. Griffith
Streatley Vicarage			29.41	747.0	51.5	10.8		W			2		5						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.56	750.8	44	6.7		SE			6		10						William Lawrence.
Taunton College																			
Thurso			29.49	749.0	46	7.8		SSE			3		8						John Trotter.
Truro, Royal Institution			29.35	745.5	44	6.7		NW			6		10					Rain	W Newcombe.
Valencia Observatory			29.52	749.8	46.3	7.9		NW	18	8.0			10						The Staff.
Wick																			
Wisbeach																			
Worthing			29.41	747.0	48.0	8.9		SW			4		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.63	752.6	46.9	8.3	82	NE			2		0						
Fanöe			29.63	752.5	53.6	12.0	71	E			4		2						
Godthaab, (Greenland)					11.7	—11.3		NE			6		2						
Stykkisholm, (Iceland)			29.76	755.8	26.2	— 3.2	96	NE			7		8						
Thorshavn, (Faröe)			29.53	750.1	49.3	9.6	65	Calm			0		4						
Vestervig			29.68	753.9	47.1	8.4	97	NE			2		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.00	762.1	60.8	16.0	62						5ck						Normal School.
Alençon																			Normal School.
Amiens			29.42	747.3	47.1	8.4	76	S			4		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.47	748.5	44.4	6.9	74	WNW			3		10		WNW	0	0		Normal School.
Besançon			30.447	773.1?	50.7	10.4	72	S			2		8		S	0.181	4.6		Normal School.
Bourges			29.56	750.9	45.3	7.4	70	SW			2		10		SW	0	0		Normal School.
Brest			29.43	747.6	50.4	10.3	72	WSW			3		10		W	0.272	6.90	Rain & hail	Naval Observatory.
Caen			29.47	748.6	49.8	9.9	64	W			2		5		NW	0.094	2.4		Normal School.
Carcassonne																			
Chartres			29.44	747.7	46.0	7.8		NW			3		8		NW	0.236	6.0		Normal School.
Chaumont			29.55	750.5	54.7	12.6		S			2		1k		S	0.209	5.3		Normal School.
Le Mans			29.59	751.5	45.7	7.6	72	N			2		5		N	0.276	7.0		Normal School.
Mirecourt			29.50	749.4	51.4	10.8	77	SSW			6		5		SW	0.039	1.0		Normal School.
Orleans																			Normal School.
Paris			29.47	748.5	44.4	6.9		WNW			3		10		W	0	0		National Observatory.
Parthenay			29.58	751.3	51.8	11.0	97	SW			6		5		NW	0.142	3.6		Normal School.
La Roche sur Yon			29.59	751.6	53.4	11.9	93	W			2		5		E	0.134	3.4		Normal School.
Rouen			29.45	748.0	47.1	8.4	61	WNW			4		10		W	0.067	1.7		Normal School.
Saint Lo			29.53	750.0	55.4	13.0	45	W			3		5		NW	0.138	3.5		Normal School.
Villefranche			29.59	751.6	54.1	12.3	90	W-W			6		10		N	0.512	13.0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)					43.2	6.2	54	SW	7.4	3.3			6		W	0.220	5.6		Père Pascall.
Mont-Louis	24.54	623.4			45.5	7.5	80	W	3.8	1.7			10k		W	0.118	3.0		—. Falguère.
Montsouris (near Paris)			29.47	748.4	45.5	7.5	80	W	3.8	1.7			10k		W	0.118	3.0		Marié Davy.
Perpignan	29.56	750.8			63.3	17.4	41	SE	9.4	4.2			5			0.622	15.8		Dr. Fines.
Saint Maur, (near Paris)			29.47	748.6	45.0	7.2	74	WNW			2		10			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.58	751.3	52.2	11.2	1.7	W			3		8		NW	0.028	0.7		C. Marquet.
Versailles, (near Paris)			29.46	748.3	45.0	7.2	77	NW			3		10			0.092	2.57		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.23	767.7	44.6	7.0	77	E	2.0	0.9			10			Blank	Blank		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.48	748.9	59.0	15.0	59	SW			2		3			0	0		Prof. Hoh.
Berlin			29.58	751.2	65.3	18.5	42	S			1		4			0	0		Prof. Arndt.
Breslau			29.65	753.2	63.5	17.5	53	SE			2		8			0	0		Dr. P. Neugebauer.
Carlsruhe			29.54	750.3	50.3	10.4	77	SW			5		7			0.039	1.0		A. Senz.
Cassel			29.49	749.0	53.6	12.0	78	NW			2		8			0.035	0.9		Dr. H. Möhl.
Cologne			29.60	751.7	52.7	11.5	82	WSW			2		8			0.024	0.6		Dr. Garthe.
Emden			29.58	751.3	46.6	8.1	91	Calm			0		10			0.398	10.1		Prof. Prestel.
Frankfort on the Main			29.60	751.8	56.7	13.7	66	ESE			1		8			0	0		Physical Society.
Friedrichshafen			29.54	750.4	55.4	13.0	66	W					9			0.259	6.6		M. Wilhelm.
Hamburg			29.58	751.3	59.9	15.5	57	NE			4		6			0	0		W. Reinert.
Kiel			29.64	752.9	53.4	11.9	71	NE			4		1			0	0		Prof. G. Karsten.
Königsberg			29.77	756.1	53.1	11.7	65	NE			2		0			0	0		Prof. E. Luther.
Köslin			29.78	756.5	61.7	16.5		SE			2		5			0	0		Dr. T gert.
Leipsic			29.52	749.8	60.1	15.6	51	E			1		6			0.058	1.5		Prof. Bruhns.
Münster			29.53	750.0	54.3	12.4	67	SW			2		10			0.228	5.8		Prof. E. Heis.
Posen			29.62	752.4	64.2	17.9	56	SE			2		3			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.56	750.8	51.6	10.9	80	E					10			0.173	4.4		Hartwig and Tölk.
Stuttgart			29.50	749.2	57.2	14.0	73	W					10			0.496	12.6		Mr. Würth.
Thorn			29.64	752.8	57.2	14.0	66	SE			5		2			0	0		Dr. Prasenbalg.
Treves, (Trier)			29.50	749.2	48.0	8.9	79	SW			3		10			0.185	4.7		Prof. Flesch.
Wustrow			29.63	752.7	47.5	8.6	75	NE			2		0			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.55	750.5	57.4	14.1	60	ENE			4		9	E		0.173	4.4		
Mondovi			29.54	750.2	54.7	12.6	43	S			2		10			0	0		
Genoa			29.65	753.0	55.8	13.2	77	S	4.9	2.2			10	S		0.020	0.5	Rain	
Pavia			29.59	751.5	59.2	15.1	58	SE			4		7	SW		0	0		
Verona			29.57	751.0	66.6	19.2	56	E			1		10			0	0		
Padua			29.58	751.4	58.8	14.9	71	SSE	4.3	1.9			9	SSW		0	0		
Parma																			
Bologna			29.65	753.2	58.1	14.5	35	WNW			4		6	E		0	0		
Livorno			29.67	753.5	58.5	14.7	86	SE	1.3	0.6			10			0	0		
Urbino			29.65	753.1	57.0	13.9	72	SW			1		10			0.008	0.2		
Ancona			29.66	753.3	45.1	7.3	76	Calm			0		10			0	0		
Siena			29.66	753.3	52.9	11.6	84	S	1.3	0.6			10	S		0.024	0.6	Light rain	
Rome			29.71	754.6	55.0	12.8	87	ESE	4.3	1.9			10	S		0.437	11.1	Rain	
Naples, O.U.			29.72	754.9	59.2	15.1	79	S			2		10	SW		0.118	3.0	Rain	
Lecce			29.74	755.3	60.8	16.0	77	S	17.4	7.8			9			0	0		
Cosenza			29.72	754.8	59.2	15.1	74	WNW			2		10			0.240	6.1	Light rain	
Catania, (Sicily)			29.74	755.4	58.1	14.5	83	SW			2		10	SW		0.039	1.0	Light rain	
Riposto																			
Palermo			29.67	753.5	61.7	16.5	57	NW			2		6	NW		0.020	0.5		
Sub-Series.																			
Naples, S. R.	29.19	741.5			59.3	13.5	81	SW			2-4		ck	NW		0.177	4.7		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.45	748.1	52.2	11.2		SSE			4								
Groningen			29.48	748.7	50.4	10.2		SE			4								
Helder			29.47	748.6	54.1	12.3		ESE			2								
Utrecht			29.44	747.7	55.2	12.9		SSE			2		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.73	755.2	50.9	10.5	47	SSE	11.6	5.2			10			0	0		
Christiania			29.84	757.9	42.1	5.6	73	NE	8.5	3.8			8			0.213	5.4		
Tromsö			29.81	757.2	37.4	3.0	96	Calm			0		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.77	756.1			58.1	14.5	67	SW	22.4	10.0			7						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Russian Central Physical Observatory at St. Petersburg.

Warsaw			29.74	755.3	41.4	5.2	84	ESE	11	5			10						Astronomical Obs.
Wilna			29.90	759.4	40.8	4.9	79	S	4	2			10						Astronomical Obs.
Dorpat			30.04	763.1	41.9	5.5	62	ESE	9	4			3						Physical Cabinet.
St. Petersburg			30.09	764.2	37.9	3.3	80	N	2	1			7						Central Physical Obs.
Kieff			30.06	763.4	41.7	5.4	72	S	7	3			1						Physical Cabinet.
Nikolaiev			30.00	762.0	53.1	11.7	66	NE	8	3.5			4						
Kertch			30.03	762.7	55.2	12.9	54	SSE	8	3.5			2						Lagorio.
Moscow			30.04	762.9	40.5	4.7	78	W	4	2			10						Meteorological Obs.
Lugan			30.04	763.1	39.9	4.4	66	SE	8	3.5			0						Meteorological Obs.
Archangel			30.13	765.2	33.4	0.8	92	WNW	13	6			10						Ogorodnikof.
Tiflis			30.06	763.5	58.6	14.8	34	SE	8	3.5			0						Physical Obs.
Astrakhan			30.26	768.5	50.4	10.2	40	WNW	2	1			2						Sebastianof.
Kasan			29.97	761.1	39.0	3.9	84	W	4	2			7						Physical Cabinet.
Orenburg			30.21	767.2	40.5	4.7	78	Calm	0	0			10						Tschernischef.
Ekaterinburg			30.08	764.0	44.1	6.7	57	W	4	2			1						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.24	768.1	37.2	2.9	53	W	4	2			1						Meteorological Obs.
Yeniseisk			29.72	755.0	35.9	1.8	81	W	13	6			10						arks.
Irkutsk																			Usolzef.
Oorga			30.23	767.8	13.6	—10.2	88	Calm	0	0			0						Mossin.
Peking, (China)			30.15	765.8	42.4	5.8	30	NNW	20	9			0						Physical Observatory.
Nertchinsk			30.17	766.4	1.4	—17.0	59	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdokof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.91	759.8	56.8	13.8	44	SW	26.2	11.7		0	5			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.05	763.3	39.6	4.2	74	SW			2		10			0	0		
Hernosand			30.05	762.9	33.8	1.0	81	E			1		10			0	0		
Stockholm			29.87	758.6	38.5	3.6	73	E			5		4			0	0		
Wisby			29.82	757.4	44.2	6.8	74	SSE			2		0			0	0		
Sub-Series.																			
Upsala			29.91	759.7	42.8	6.0	72	ENE			2		0						Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.21	716.5			50.9	10.5	64	SSW			2		7			0.217	5.5		The Observatory.
Zurich	27.93	709.4			49.1	9.5	81	W			2		10			0.043	1.1	Rain	The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —7.8mm.; Thermometer, —0°.2 C.; Relative Humidity, +6 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.99	761.8	63.7	17.6	71	NW			2		10						
Constantinople			29.82	757.4	68.4	20.2	43	S	7	3			5		SW	0	0		
Fao, (Persian Gulf)			30.15	765.9	63.9	17.7		NW			3		0						
Salonica			29.70	754.4	69.6	20.9		SE			1		0						
Valona			29.75	755.6	68.9	20.5		S			2		2						
Varna			29.83	757.6	55.4	13.0		NE			3		0						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

NOTE.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.46	773.7	29	— 1.7		NE	9	4.0		0	0			0.03	0.8		
Chatham, N. B.			30.37	771.4	21	— 6.1	85	NW	10	4.5		0	0			0	0		
Charlottetown, P. E. Island			30.27	768.8	30	— 6.7	81	NW	16	7.2		0	5ks		NW	0	0		
Fort Garry, Manitoba			30.31	769.9	25	— 3.9	95	NE	13	5.8		5k	5ks	NE		0	0		
Halifax, N. S.			30.14	765.5	27	— 2.8	76	NW	9	4.0		0	5ks		NW	0	0		
Kingston, Ontario			30.43	772.9	28	— 2.2	92	NE	5	2.2			10s			0.22	5.6		
Montreal, Quebec			30.50	774.7	26	— 3.3	57	NE	10	4.5		0	0			0	0		
Ottawa, Ontario			30.40	774.4	22	— 5.6	62	NE	4	1.8		0	0			0.10	2.5		
Parry Sound, Ontario			30.37	771.4	30	— 1.1	69	E	9	4.0		2k	5k	E	E	0.05	1.3		
Port Dover, Ontario			30.29	769.4	32	0.0	90	NE	9	4.0		10k	0	NE		0	0		
Port Stanley, Ontario			30.25	768.3	34	1.1	89	NE	8	3.6			10n		E	0.16	4.1		
Quebec, Quebec			30.51	774.9	21	— 6.1	86	Calm	0	0		0	0			0	0		
Saugeen, Ontario			30.28	769.1	33	0.6	94	E	6	7.2			10n			0.09	2.3		
Stayner			30.34	770.6	33	0.6	80	E	4	1.8			10ks			Blank	Blank		
Sydney, C. B.			30.11	764.8	20	— 6.7	70	NE	13	5.8		2c	8ks		N	0	0		
Toronto, Ontario			30.37	771.4	31	— 0.6	82	NE	8	3.6			10n			0	0		

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.44	773.2	29	— 1.7	100	Calm	0	0			10n			0.06	1.5	Light snow	
Alpena, Mich.			30.27	768.8	31	— 0.6	89	SE	10	4.5			10n			0.04	1.0	Sleet	
Atlantic City, N. J.			30.31	769.9	40	4.4	91	NE	12	5.4		10cs	0	NW		0	0		
Augusta, Ga.			30.34	770.6	56	13.3	81	Calm	0	0		0	Sm'e			0	0		
Baltimore, Md.			30.26	768.6	46	7.8	76	NE	1	0.4		2k	Haze	NW		0	0		
Barnegat, N. J.			30.34	770.6	40	4.4	91	SE	15	6.7			10s		NE	0	0		
Benton, Montana			30.28	769.1	— 6	—21.1	100	Calm	0	0		0.	0			0.01	0.3		
Bismarck, Dakota			30.02	762.5	22	— 5.6	86	N	4	1.8			10n			0.11	2.8	Light snow	
Boston, Mass			30.44	773.2	36	2.2	53	NE	8	3.6		5c	Haze	N		0	0		
Breckenridge, Minn.			30.08	764.0	33	0.6	89	NE	8	3.6			10s			0	0		
Buffalo, N. Y.			30.28	769.1	32	0.0	89	E	14	6.2			10ks			0.10	2.5		
Burlington, Vt.			30.49	774.4	26	— 3.3	63	N	3	1.3			2s			0	0		
Cairo, Ill.			30.15	765.8	65	18.3	48	S	8	3.6		10cs	0	SW		0	0		
Cape Hatteras, N. C.			30.23	767.8	55	12.8	93	S	8	3.6		Haze	Haze			0	0		
Cape Henry, Va.			30.18	766.6	57	13.9	63	SW	8	3.6		Haze	Haze			0	0		
Cape May, N. J.			30.28	769.1	43	6.1	83	E	12	5.4		2ck	2s	NW		0	0		
Charleston, S. C.			30.33	770.4	58	14.4	81	W	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			29.73	755.1	5	—15.0	100	N	16	7.2			10n			0	0	Light snow	
Chicago, Ill.			30.10	764.5	42	5.6	82	N	8	3.6		2ck	5s	W		0	0		
Cincinnati, Ohio			30.19	766.8	58	14.4	64	SE	1	0.4		8c	0			0	0		
Cleveland, Ohio			30.21	767.3	36.8	2.7	85	N	8	3.6		8k	0	W		0	0		
Colorado Springs, Col.			29.60	751.8	15	— 9.4	65	N	16	7.2			10s			0.01	0.3		
Corsicana, Texas			29.88	758.9	68	20.0	79	SE	12	5.4		5k	0	SE		0	0		
Davenport, Iowa			29.98	761.5	56	13.3	70	E	8	3.6		8ck	Sm'e	SW		0	0		
Denver, Col.			29.81	757.2	12	—11.1	80	N	8	3.6			10n			0.11	2.8	Light snow	
Detroit, Mich.			30.32	770.1	38	3.3	71	E	2	0.9		2c	Haze			0	0		
Dodge City, Kansas			29.24	742.7	40	4.4	82	S	8	3.6			10s			0.30	9.9	Threatening	
Dubuque, Iowa			30.04	763.0	51	10.6	79	SE	2	0.9			10s			0.05	1.3		
Duluth, Minn.			30.20	767.1	31	— 0.6	89	NE	24	10.7			10s			0.04	1.0		
Eastport, Me.			30.38	771.6	24	— 4.4	89	N	14	6.2		0	0			0	0		
Erie, Penn.			30.24	768.1	34	1.1	100	NE	16	7.2			10s			0	0		
Escanaba, Mich.			30.26	768.6	34	1.1	71	NE	12	5.4			10s			0	0		
Fort Gibson, I. T.			29.83	757.7	67	19.4	64	SE	20	8.9			8ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.02	762.5	23	— 5.0	86	N	24	10.7			10n			0.20	5.1	Light snow	
Galveston, Texas			29.98	761.5	68	20.0	94	SE	10	4.5		5ck	0	SW		0	0		
Grand Haven, Mich.			30.12	765.0	49	9.4	71	SE	6	2.7		5c	Haze	W		0	0		
Indianapolis, Ind.			30.14	765.5	59	15.0	64	S	1	0.4		5c	Haze	N		0	0		
Indianola, Texas			29.96	761.0	69	20.6	90	SE	14	6.2		0	0			0	0		
Jacksonville, Fla.			30.32	770.1	63	17.2	78	NE	2	0.9		2k	0	W		0	0		
Keokuk, Iowa			29.92	760.0	62	16.7	61	S	12	5.4		5ck	Haze	W		0	0		
Key West, Fla.			30.23	767.8	70.2	21.2	71	E	13	5.8		0	5ks			0	0		
Kittyhawk, N. C.			30.20	767.1	53	11.7	86	SW	18	8.0		Haze	5s			0	0		
Knoxville, Tenn.			30.31	769.9	50	10.0	87	Calm	0	0		8cs	Haze	W		0	0		
La Crosse, Wis.			30.05	763.3	44	6.7	100	N	5	2.2			10n			0.08	2.0	Light rain	
Leavenworth, Kan.			29.80	756.9	63	17.2	61	S	15	6.7			10s			0.03	0.8	Threatening	
Lexington, Ky.			30.23	767.8	59	15.0	56	SW	9	4.0		Haze	Sm'e			0	0		
Long Branch, N. J.			30.38	771.6	38	3.3	80	NE	30	13.4			10s		NE	0	0		
Louisville, Ky.			30.14	765.5	66	18.9	49	Calm	0	0			10s			0	0		
Lynchburg, Va.			30.19	766.8	60	15.6	49	SW	1	0.4			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.27	768.8	34	1.1	79	E	8	3.6			10s			0.11	2.8		
Memphis, Tenn.			30.17	766.3	63	17.2	61	SE	3	1.3			10s			0	0		
Milwaukee, Wisconsin			30.17	766.3	35	1.7	90	NE	12	5.4			10ks			0	0		
Mobile, Ala.			30.23	767.8	63	17.2	83	SE	10	4.5		2c	Haze			0	0		
Montgomery, Ala.			30.30	769.6	61	16.1	61	SE	1	0.4		2c	Haze			0	0		
Morgantown, W. Virginia			30.15	765.8	57	13.9	69	Calm	0	0		10c	Haze			0	0		
Mt. Washington, N. H.			30.20	767.1	14	—10.0	82	NE	10	4.5		0	0			0	0		
Nashville, Tenn.			30.23	767.8	61	16.1	66	Calm	0	0		2c	Haze	W		0	0		
New Haven, Conn.			30.43	772.9	34	1.1	79	NE	8	3.6			10s			0.01	0.3		
New London, Conn.			30.44	773.2	36	2.2	50	NE	9	4.0			10s		NE	0	0		
New Orleans, La.			30.14	765.5	63	17.2	78	E	5	2.2		0	Sm'e			0	0		
Newport, R. I.																			
New York, N. Y.			30.40	772.1	35	1.7	90	NE	16	7.2			10s			0	0		
Norfolk, Va.			30.18	766.6	53	11.7	70	W	7	3.1		8c	Haze			0	0		
North Platte, Neb.			29.41	747.0	30	— 1.1	100	Calm	0	0			10n		E	0.35	8.9	Light rain	
Omaha, Neb.			29.71	754.6	53	11.7	97	SE	17	7.6			10s			1.33	8.4	Heavy rain	
Oswego, N. Y.			30.38	771.6	36	2.2	85	SE	9	4.0			10s			0.10	2.5		
Peck's Beach			30.32	770.1	42	5.6	91	E	20	8.9			10ks		W	0	0		
Pembina, D. T.			30.24	768.1	29	— 1.7	88	NE	8	3.6			10s			0	0		
Philadelphia, Penn.			30.35	770.9	41	5.0	48	E	6	2.7		2k	5s	N	E	0	0		
Pike's Peak, C. T.			29.38	746.2	2	—16.7	100	NW	24	10.7			Fog			0	0	Fog	
Pittsburgh, Penn.			30.17	766.3	52	11.1	72	NW	2	.9		Haze	Sm'e			0	0		
Port Huron, Mich.			30.25	768.3	35	1.7	90	SE	3	1.3			10s			0.09	2.3		
Portland, Maine			30.46	773.7	30	— 1.1	48	NE	12	5.4		0	Haze			0	0		
Portland, Or.			30.25	768.3	29	— 1.7	77	Calm	0	0		5k	Haze			0	0		
Punta Rassa, Fla.			30.30	769.6	66.5	19.2	63	NE	3	1.3		Haze	Sm'e			0	0		
Rochester, N. Y.			30.31	769.9	32	0.0	94	NE	10	4.5			Fog			0.11	2.8	Fog	
Salt Lake City, Utah			29.75	755.7	24	— 4.4	74	W	12	5.4			10s			0.35	8.9		
Sandy Hook, N. J.			30.37	771.4	37	2.8	90	NE	20	8.9			10s		NE	0	0	Threatening	
San Diego, Cal.			30.14	765.5	39	3.9	63	NE	8	3.6		0	0			0.01	0.3		
San Francisco, Cal.			30.19	766.8	41	5.0	74	W	2	0.9		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.31	744.5	21	— 6.1	43	SW	16	7.2		5c	2s	SW		0	0		
Savannah, Georgia			30.33	770.4	57	13.9	81	Calm	0	0		0	Fog			0	0		
Shreveport, La.			30.06	763.5	66	18.9	78	SE	10	4.5		8ck	0	S		0	0		
Springfield, Mass.			30.45	773.4	35	1.7	52	NE	4	1.8			10s			0.025	0.63		
St. Louis, Mo.			30.07	763.3	63	17.2	47	S	12	5.4		10cs	0			0	0		
St. Marks, Fla.			30.30	769.6	58	14.4	81	E	4	1.8		0	0			0	0		
St. Paul, Minn.			30.02	762.5	35	1.7	95	N	8	3.6			10n			0.27	6.9	Light rain	
St. Paul's Island, Alaska			30.48	774.2	20	— 6.7	70	NE	11	4.9		1c	10k			0.01	0.3		
Squan Beach, N. J.			30.34	770.6	38	3.3	80	NE	18	8.0			10s			0	0		
Toledo, Ohio			30.22	767.6	39	3.9	81	E	8	3.6		5cs	0			0	0		
Tybee Island, Ga.			30.34	770.6	56	13.3	53	Calm	0	0		Sm'e	0			0	0		
Vicksburg, Miss.			30.20	767.1	60	15.6	81	SE	6	2.7			10s			0	0		
Virginia City, Mon.			29.71	754.4	— 1	—18.3	72	Calm	0	0		0	2s			0	0		
Washington, D. C.			30.24	768.1	44	6.7	71	NE	11	4.9		2k	8s	NW		0	0		
Wilmington, N. C.			30.28	769.1	58	14.4	69	W	8	3.6		Haze	0			0	0		
Wood's Hole, Mass.			30.43	772.9	39	3.9	47	NE	16	7.2		0	0			0	0		
Wytheville, Va.			30.06	763.5	56	13.3	45	W	7	2.7		Haze	0			0	0		
Yankton, D. T.			29.87	758.7	36	2.2	95	NE	1	0.4			10n		NE	3.15	80.0	Light rain	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.06	763.5	81	27.2		NE	4	1.8		5c	5s	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.94	760.5	76	24.4		NE				2k	0			0.33	8.4		L. V. Bigard.
Havana, Cuba, W. I.			29.97	761.2	74	23.3	71	S	4.8	2.2		2fc	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.24	768.1	75	23.9		Calm	0	0		0	1ks			0	0		James Gall.
St. Thomas, St. T., W. I.	30.23	767.8			74	23.3		N	7	2.7		1ck	2k	N	N	0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.94	760.5	70	21.1	67	N	10.8	4.8		0	2s		N	0	0		Robert Mason.
St. Georges, Bermudas			30.04	763.0	60.6	15.6	60	NE	16.0	7.2		0	5k			0.170	4.31		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	58	14.4	70	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.94	760.5	58	14.4	76	Calm	0	0		0	0			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.38	771.6	15.6	− 9.4	100	W	8	3.6			10s			0.03	0.8		J. Fortescue.
Clifton, Jamaica, W. I.			30.00	762.0	65	18.3	86	N	5.0	2.2		0	2k			0	0		C. Partridge.
St. John's, Newfoundland			29.75	755.6	25	− 3.9	100	NE				Haze	Haze			0.80	20.3		John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Illyria, Ohio.			30.22	767.6	36	2.2	80	N	1	0.4		0	5c			0	0		H. M. Redington.
Indianola, Iowa	28.98	736.1			56	13.3		SE					9n			0.03	0.8		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 8, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:30 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.02	762.5	66.4	19.1		NW			3		2			0	0		Charnot.
Algiers			29.94	760.5	65.1	18.4	65	W			3		4			0	0		Peter.
La Calle																			Kuntz.
Tunis			29.95	760.8	70.9	21.6	40	WSW			3		0			0	0		Jacques.
Sfax			29.96	760.9															Chauvey.
Saïda			29.95	760.6	61.5	16.4		W			5		1			0	0		Grosjean.
Tebessa			29.95	760.6	63.0	17.2		W			5		2			0	0		Colin.
Geriville			29.92	760.0	62.1	16.7		W			2		2			0	0		Bernadach.
Laghouat			29.93	760.1	65.5	18.6	35	SW			1		0			0	0		Poinsignon.
Biskra			29.95	760.6	73.6	23.1		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			29.61	752.2	58.3	14.6	48	SW			4		5			0.090	2.3		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.66	753.4	60.8	16.0	56	NE			2		9			0.071	1.8		I. R. Observatory.
Eperies			29.70	754.4	58.3	14.6	72	S			1		9ks			0.018	0.47	Rain	Julius Mikolik.
Gratz			29.55	750.6	55.6	13.1	67	ENE			2		8			0.299	7.6		Andreas Rospini.
Hermannstadt			29.68	753.8	62.4	16.9	47	SE			4		9			0	0		Prof. Reissenberger.
Kremsmünster			29.67	753.7	44.4	6.9	73	WNW			2					0.315	8.0		Prof. C. Wagner.
Lemberg			29.78	756.4	46.2	7.9	83	S			2		2			0.012	0.3		Dr. T. Stanecki.
Nytregyhaza			29.71	754.5	63.3	17.4	59	Calm			0		10			0.188	4.74	Rain	Habzsuda Daniel.
Pola			29.67	753.7	56.1	13.4	73	SSW			1		10n			0.046	1.17	Rain	I. R. Hydrographic Office
Szegedin			29.68	753.8	52.5	11.4	88	S			2		10			0.154	3.90		Karl Stancel.
Trieste			29.67	753.6	54.3	12.4	78	SW			1		10			0.020	0.5	Drizzling	Prof. V. Farolfi.
Vienna			29.64	752.9	45.3	7.4	59	W			4		10			0.319	8.1		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	29.43	747.4			52.5	11.4	46	W			1		8		SE	0.024	0.60		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.34	770.6	47.5	8.6		NNW	21	9.4			6			0.010	0.2		William Boswell.
Annanhill																			
Ardrossan			30.02	762.5	54	12.2		WNW			3		5						William McNeil.
Armagh Observatory			30.02	762.5	50.0	10.0		NNE	15	6.7			8						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.81	757.2	45.0	7.2		N			2		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.01	762.2	52.3	11.3		NNW			3		7						J. Dreyer, for L'd Rosse
Bradford			29.76	755.9	42.3	5.7		N			3		10					Rain	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.70	754.4	43.0	6.1		NNE			1		10						H. Todd.
Cape Town, (Cape Colony)			29.92	760.0	94.2	34.5		W			1		2						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.95	760.7			94.4	34.7	25	S	7	3.1			1						The Staff, for E. J. Stone
Cardington			29.67	753.6	44.0	6.7		N					10						John McLaren.
Carlisle			29.91	759.7	46.0	7.8		N					9			0.03	0.8		T. Bell, for J. Cartmell.
Chatham, School M. E			29.49	749.0	51.0	10.6		SE			1		6						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	756.9	81.0	27.2		NE			2		10						Sgt. W. F. Hopkins
Dartmoor			29.75	755.6	38.0	3.3		NE			5		10						R. E. Power.
Donaghadee			30.00	762.0	49	9.4		NNE			6		7						J. Mac Gowan, Jr.
Dover			29.65	753.1	47	8.3		E			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.78	756.4	45.8	7.7		ENE	7.0	3.1			10					Showery	Thomas Mackereth.
Falmouth Observatory			29.70	754.4	45.0	7.7		NNW	35	15.6			10						The Staff.
Fort Napier, (Natal)			30.02	762.5	82.6	28.1		NW			1		4						Pvt. G. Salmon.
Freetown, (Sierra Leone)																			
Galway, Queen's College			30.00	762.0	50	10.0		NW			4		3						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.00	762.0	65.5	18.3		SW			4		7						Sergt. E. G. Baker.
Glasgow Observatory			30.01	762.2	50.9	10.5		NE			4		8						James Gray.
Great Yarmouth			29.68	753.9	43	6.1		NNE			1		10					Fog	G. T. Watson.
Greenwich Royal Obs.			29.67	753.6	53.6	12.0		NE			1		6						The Staff, for G. B. Airy.
Guernsey			29.62	752.3	45.0	7.2		NE			1		4						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.75	755.6	41.6	5.3		NNE					10					Rain	F. J. Pace, for L. J. Crossley.
Halifax, (Nova Scotia)			30.21	767.3	31.0	— 0.5		NW			3		1						Corp'l J. Y. Thompson.
Helston			29.66	753.4	47	8.3		W			6		10					Showery	Dr. W. B. Doyle.
Holyhead			29.88	758.9	46	7.8		NNE			6		3					Threatening	John Tilston.
Hull Park																			
Kew Observatory			29.67	753.6	50.6	10.3		N	12	5.4			7						The Staff.
Kingstown			29.97	761.2	46	7.8		N			5		5						George Mitchell.
Lampeter																			
Leicester Museum			29.76	755.9	42.9	6.1		NE			1		10					Drizzling	William J. Harrison
Llandudno			29.86	758.4	44.1	6.7		NNE			4		10						Dr. James Nicol.
Malta, (Mediterranean)			29.98	761.5	62.8	17.1		NW			2		2k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.10	764.5	44	6.7		ENE			1		10					Drizzling	William D. Penny.
Nassau, (Bahamas)			29.26	768.6	73.8	23.2		NE			4		6						Surg.-Maj. J. Jameson.
North Shields			29.88	758.9	42	5.6		NNE			7		9					Drizzling	John Wm. Irvine.
Nottingham			29.76	755.9	43.0	6.1		NE			2		10d		NE			Rain	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.76	755.9	41.1	5.1		NNE			4		10					Drizzling	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.69	754.1	46	7.8		NE			2		10						J. Lucas, for R. Main.
Plymouth			29.68	753.9	45	7.2		NE			4		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.95	760.7	52	11.1		N			5		5						W. Kennedy.
Saint Ann's Head			29.71	754.6	46	7.8		N			6		10					Showery	John C. Walker.
Saint Helier, (Jersey)			29.60	751.8	48.6	9.2		NE			2		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.14	765.5	43.1	6.2		NE	10	4.5			10					Haze	Rev. C. Clouston
Scarborough			29.76	755.9	41.4	5.2		N			5		10					Mist	F. Shaw.
Scutari, (Turkey)			29.79	756.7	65.0	18.4		NNE			2		9					Haze	Sergt. W. H. Lyne.
Sheffield			29.76	755.9	41.7	5.4		NNE			3		10			0.184	5.3	Drizzling	W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.90	759.4	47.4	8.4		NNE			5		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.71	754.6	43.4	6.3		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			29.79	756.7	43.9	6.6		NE			4		10						The Staff.
Stornoway, Lews C. (Heb.)			30.01	762.2	46	7.8		NE			3		10						John Smith.
Strathfield Turgiss			29.65	753.1	50.3	10.2		N			1–2		5k						Rev Charles H. Griffith
Streatley Vicarage			29.71	754.6	52.3	11.3		W			4		5						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.05	763.3	46	7.8		NE			3		8						William Lawrence.
Taunton College																			
Thurso			30.12	765.0	45	7.2		N			1		9						John Trotter.
Truro, Royal Institution			29.70	754.4	47	8.3		N			8		8						W Newcombe.
Valencia Observatory			30.05	763.3	52.7	11.5		NNW	18	8.0			5						The Staff.
Wick																			
Wisbeach																			
Worthing			29.66	753.4	47.1	8.4		NE			1		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.77	756.1	38.7	3.7	83	ESE			6		10						
Fanöe			29.74	755.3	41.7	5.4	87	E			4		10						
Godthaab, (Greenland)			29.65	753.0	13.6	—10.2		NE			4		0						
Stykkisholm, (Iceland)			29.74	755.5	37.0	2.8	84	SE			9		8						
Thorshavn, (Faröe)			30.17	766.2	43.9	6.6	83	E			2		10						
Vestervig			29.82	757.4	38.7	3.7	85	ENE			6		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.71	754.5	54.0	12.2	74						5n						Normal School.
Alençon																			Normal School.
Amiens			29.61	752.2	51.4	10.8	58	SE			3		10			0.047	1.2		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.62	752.4	48.9	9.4	58	ESE			2		8		ESE	0.098	2.50		Normal School.
Besançon			29.65	753.2	48.9	9.4	69	S			3		8		S	0.331	8.4		Normal School.
Bourges			29.65	753.0	41.7	5.4	72	SW			1		5		SW	0.110	2.8		Normal School.
Brest			29.56	750.9	44.8	7.1	85	NNW			4		10		NW	0.118	3.00	Rain	Naval Observatory.
Caen			29.60	751.8	47.3	8.5	70	NW			5		5		NW	0	0		Normal School.
Carcassonne																			
Chartres			29.56	750.7	41.5	5.3		N			3		8		N	0.276	7.0		Normal School.
Chaumont			29.60	751.9	48.4	9.1		SSE			2		n		SSE	0.236	6.0		Normal School.
Le Mans			29.64	752.8	47.5	8.6	65	S			2		8		N	0.295	7.5		Normal School.
Mirecourt			29.53	750.1	49.8	9.9	64	N			2		10		NNW	0.039	1.0		Normal School.
Orleans																			Normal School.
Paris			29.60	751.8	45.9	7.7		SE			1		10		ESE	0.134	3.4	Rain	National Observatory.
Parthenay			29.54	750.2	50.0	10.0	58	W			2		5		NW	0	0		Normal School.
La Roche sur Yon			29.60	751.9	51.1	10.6	62	W			2		5		SE	0.197	5.0		Normal School.
Rouen			29.60	751.9	51.6	10.9	54	NNE			2		8		E	0.248	6.3		Normal School.
Saint Lo			29.61	752.1	47.8	8.8	88	NW			2		5		NE	0.118	3.0		Normal School.
Villefranche			29.82	757.4	53.4	11.9	86	SE			6		10		NW	0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)					39.0	3.9	65	SSE	13.0	5.8			8		SSW	0.259	6.6		Père Pascall.
Mont-Louis	24.55	623.6			46.0	7.8	63	SE	0.1	0.03			10k		SE	0.055	1.4	Fog	—, Falguère.
Montsouris (near Paris)			29.59	751.5	46.0	7.8	63	SE	0.1	0.03			10k		SE	0.055	1.4	Fog	Marié Davy.
Perpignan	29.62	752.4			55.4	13.0	75	WNW	7.4	3.3			5		SW	0.280	7.1		Dr. Fines.
Saint Maur, (near Paris)			29.59	751.6	47.1	8.4	57	SE			1		10			0.158	4.0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.66	753.4	45.1	7.3	72	SW			1		10		NW	0.185	4.7		C. Marquet.
Versailles, (near Paris)			29.59	751.5	47.1	8.4	57	SE			2		10			0.043	1.10		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.19	766.8	46.6	8.1	89	NE	6.3	2.8			Fog			0	0	Fog	H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.60	751.8	45.5	7.5	80	W			3		10			0.284	7.2	Rain	Prof. Hoh.
Berlin			29.58	751.3	59.2	15.1	49	SE			2		9			0	0		Prof. Arndt.
Breslau			29.67	753.7	57.9	14.4	66	SE			1		9			0	0		Dr. P. Neugebauer.
Carlsruhe			29.63	752.6	53.1	11.7	55	SW			5		8			0.059	1.5		A. Senz.
Cassel			29.56	750.7	48.9	9.4	76	NW			2		10			0.106	2.7		Dr. H. Möhl.
Cologne			29.75	755.6	50.2	10.1	73	SW			3		4			0	0		Dr. Garthe.
Emden			29.64	752.8	57.0	13.9	80	NE			1		5			0.028	0.7		Prof. Prestel.
Frankfort on the Main			29.72	754.8	54.9	12.7	36	SW			1		7			0.008	0.2		Physical Society.
Friedrichshafen			29.69	754.0	49.1	9.5	61	S					5			0	0		M. Wilhelm.
Hamburg			29.60	751.9	49.6	9.8	87	NE			4		10			0.539	13.7		W. Reinert.
Kiel			29.67	753.6	42.6	5.9	83	NE			5		10			0	0		Prof. G. Karsten.
Königsberg			29.87	758.0	46.8	8.2	76	E			2		7			0	0		Prof. E. Luther.
Köslin			29.87	758.7	52.5	11.4		SE			2		4			0	0		Dr. T gert.
Leipsic			29.60	751.8	45.7	7.6	91	SW			2		10			0.028	0.7	Rain	Prof. Bruhns.
Münster			29.61	752.0	44.6	7.0	89	SW			2		10			0.378	9.6		Prof. E. Heis.
Posen			29.68	753.8	57.0	13.9	65	SE			5		10			0.083	2.1		Dr. Magener.
Strassburg, (in Alsace)			29.65	753.2	52.0	11.0	54	S					4			0.012	0.3		Hartwig and Tülk.
Stuttgart			29.64	752.8	5[illegible].7	10.4	58	NE					5			0.024	0.6		Mr. Würth.
Thorn			29.72	755.0	53.1	11.7	73	SE			6		5			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.60	751.9	51.8	11.0	57	W			4		6			0	0		Prof. [illegible]lesch.
Wustrow			29.69	754.0	43.9	6.6	85	ENE			2		10			0	0		E. F. [illegible]chütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.58	751.2	55.0	12.8	47	S			2		7	W		0	0		
Mondovi			29.55	750.5	54.7	12.6	46	SE			2		1			0	0		
Genoa			29.63	752.7	55.6	13.1	55	SE	10.5	4.7			8	SE		0	0		
Pavia			29.59	751.5	54.5	12.5	58	E			4		5	SW		0	0		
Verona			29.59	751.6	55.0	1[illegible].8	56	E			8		10			0	0		
Padua			29.58	751.4	56.1	13.4	62	S	6.9	3.1			9	S		0	0		
Parma																			
Bologna			29.65	753.1	58.6	14.8	27	SW			6		4	W		0	0		
Livorno					55.6	13.1	59	W	18.6	8.3			6			0.079	2.0		
Urbino			29.66	753.4	53.4	11.9	68	SSW			2		8			0.158	4.0		
Ancona			29.67	753.6	55.8	13.2	86	ESE			1		6			0.197	5.0		
Siena			29.71	754.6	51.1	10.6	76	WSW	5.6	2.5			7	W		0.122	3.1		
Rome			29.80	757.0	57.6	14.2	79	S	13.0	5.8			10	S		0.004	0.1	Light rain	
Naples, O. U.			29.90	759.4	61.3	16.3	60	SW			4		4	SW		0	0		
Lecce			29.87	758.6	60.8	16.0	75	W	16.8	7.5			5			0	0		
Cosenza			29.94	760.4	59.7	15.4	65	WNW			1		10			0	0		
Catania, (Sicily)			29.94	760.5	61.7	16.5	61	SW			4		0			0	0		
Kiposto																			
Palermo			29.86	758.4	64.8	18.2	50	WSW			4		3	WNW		0	0		
Sub-Series.																			
Naples, S. R.	29.36	745.7			57.7	14.3	76	S			4		ck	SW		0.110	2.8		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.67	753.6	48.2	9.0		NNE			2								
Groningen			29.51	749.6	44.6	7.0		N E			3								
Helder			29.61	75 .2	44.4	6.9		SW			1								
Utrecht			29.60	751.8	48.4	9.1		SSE			1		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.96	760.9	57.9	14.4	44	NNW	15.4	2.4			0			0	0		
Christiania			30.08	764.1	43.5	6.4	69	NNE	11.0	4.9			10			0.020	0.5		
Tromsö			30.01	762.3	42.1	5.6	93	Calm			0		8			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.75	755.7			54.0	12.2	66	N	17.4	7.8			10						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.76	756.0	50.0	10.0	75	ESE	7	3			4						Astronomical Obs.
Wilna			30.00	761.9	46.9	8.3	59	E	8	3.5			3						Astronomical Obs.
Dorpat			30.19	766.7	41.4	5.2	69	ESE	9	4			0						Physical Cabinet.
St. Petersburg			30.23	767 7	43.2	6.2	58	NE	4	2			2						Central Physical Obs.
Kieff			30.06	763.4	49.3	9.6	55	ESE	11	5			1						Physical Cabinet.
Nikolaiev			29.97	761.3	57.4	14.1	50	SE	13	6			0						
Kertch			29.91	759.7	60.6	15.9	55	E	10	4.5			6						Lagorio.
Moscow			30.17	766.2	41.9	5.5	55	W	4	2			8						Meteorological Obs.
Lugan			30.02	762.5	34.9	1.6	87	ENE	13	6			10						Meteorological Obs.
Archangel			30.37	771.4	35.2	1.8	75	WNW	4	2			0						Ogorodnikof.
Tiflis			29.90	759.5	63.0	17.2	22	SE	4	2			0						Physical Obs.
Astrakhan			30.09	764.2	55.9	12.8	41	NNE	8	3.5			5						Sebastianof.
Kasan			29.96	760.9	38.8	3.8	82	W	9	4			5						Physical Cabinet.
Orenburg			29.93	760.1	42.1	5.6	75	NW	10	4.5			8						Tschernischef.
Ekaterinburg			29.97	761.1	43.7	6.5	57	Calm	0	0			3						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.08	764.1	37.6	3.1	56	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.97	761.2	34.2	1.2	71	E	8	3.5			10						Marks.
Irkutsk																			Usolzef.
Oorga			29.98	761 5	13.3	—10.4	100	NW	25	11			0						Mossin.
Peking, (China)			30.02	762.5	45.9	7.7	32	SSW	10	4.5			0						Physical Observatory.
Nertchinsk			29.83	757.6	18.7	— 7.4	64	SE	13	6			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.90	759.4	57.2	14.0	31	W	10.7	4.8		1	1	W		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.19	766.9	40.6	4.8	87	SW			2		10			0	0		
Hernosand			30.24	768.1	38.8	3.8	67	Calm			0		10			0	0		
Stockholm			30.05	763.2	37.4	3.0	79	ENE			5		0			0	0		
Wisby			29.97	761.3	35.6	2.0	89	E			2		10			0	0		
Sub-Series.																			
Upsala			30.09	764.4	41.2	5.1	72	NE			6		1	E					Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.22	716.8			51.7	10.4	33	SSW			4		8			0.138	3.5		The Observatory.
Zurich	28.02	711.7			51.3	10.7	48	SW			1		7			0.496	12.6		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —7.4mm.; Thermometer, —0°.5 C.; Relative Humidity, —25 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.67	753.5	62.6	17.0	75	NE			4		10						
Constantinople			29.83	757.7	61.5	16.4	64	N	16.8	7.5			10		NE	0	0		
Fao, (Persian Gulf)			30.18	766.6	66.2	19.0		S			3		5						
Salonica			29.79	756.6	70.0	21.1		SW			3		0						
Valona			29.86	758.4	63.5	17.5		W			1		2						
Varna			29.88	759.0	53.6	12.0		S			2		10					Mist	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.28	769.1	31	— 0.6		NE	3	1.3		0	10s		NE	0.07	1.8	Light rain	
Chatham, N. B.			30.24	768.1	28	— 2.2	94	NW	7	2.7		5cs	5ks	NW	NW	0	0		
Charlottetown, P. E. Island			30.20	767.1	26	— 3.3	71	N	13	5.8		0	0			0	0		
Fort Garry, Manitoba			29.60	751.8	32	0.0	94	E	18	8.0		5k	5n	E	E	0.08	2.0	Sleet	
Halifax, N. S.			30.13	765.3	33	0.6	89	NW	6	2.7		0	0			0	0		
Kingston, Ontario			30.25	768.3	33	0.6	89	NE	1	0.4			10s			0.11	2.8		
Montreal, Quebec			30.28	769.1	28	— 2.2	77	NE	6	2.7		Haze	Haze			0	0		
Ottawa, Ontario			30.26	768.6	30	— 1.1	70	Calm	0	0			10n			0	0		
Parry Sound, Ontario			30.12	765.0	38	3.3	77	E	5	2.2		5k	5ks	E	E	0	0		
Port Dover, Ontario			30.13	765.3	34	1.1	89	N	7	3.1		5ck	0	W		0	0		
Port Stanley, Ontario			30.09	764.3	42	5.6	77	E	12	5.4		Haze	0			0	0		
Quebec, Quebec			30.33	770.4	25	— 3.9	75	Calm	0	0		5k	0			0	0		
Saugeen, Ontario			30.05	763.3	40	4.4	95	Calm	0	0		10k	0			0	0		
Stayner			30.09	764.3	39	3.9	74	SE	6	2.7		2ck	0	NW		0	0		
Sydney, C. B.			30.10	764.5	25	— 3.9	56	NE	7	3.1		0	2ks		NW	0	0		
Toronto, Ontario			30.16	766.1	39	3.9	79	NE	9	4.0		5ck	8n	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.28	769.1	35	1.7	79	S	8	3.6			10s			0.02	0.5		
Alpena, Mich.			30.01	762.2	34	1.1	89	SE	4	1.8		1ck	Sm'e			0.01	0.3		
Atlantic City, N. J.			30.36	771.1	42	5.6	83	E	6	2.7		8cs	0	NW		0	0		
Augusta, Ga.			30.28	769.1	57	13.9	81	Calm	0	0		0	Sm'e			0	0		
Baltimore, Md.			30.35	770.9	43	6.1	75	Calm	0	0			10s			0	0		
Barnegat, N. J.			30.35	770.9	41	5.0	63	E	1	0.4			10s		E	0	0		
Benton, Montana			29.89	759.2	— 2	—18.9	100	E	1	0.4		0	0			0	0		
Bismarck, Dakota			29.19	741.4	30	— 1.1	100	N	25	11.2			10n			1.23	31.2	Light snow.	
Boston, Mass.			30.32	770.1	40	4.4	56	W	6	2.7		5c	0	N		0	0		
Breckenridge, Minn.			29.48	748.8	38	3.3	90	SE	12	5.4			10s			0.62	15.7		
Buffalo, N. Y.			30.09	764.3	45	7.2	76	Calm	0	0		2k	Sm'e	W		0	0		
Burlington, Vt.			30.29	769.4	34	1.1	79	S	4	1.8			10s			0	0		
Cairo, Ill.			29.95	760.7	67	19.4	64	S	16	7.2		4cs	0	SW		0	0		
Cape Hatteras, N. C.			30.28	769.1	52	11.1	86	NE	16	7.2		2ck	Sm'e			0	0		
Cape Henry, Va.			30.36	771.1	46	7.8	84	NE	14	6.3			10s			0	0		
Cape May, N. J.			30.37	771.4	41	5.0	82	E	4	1.8		2k	0	NW		0	0		
Charleston, S. C.			30.30	769.6	61	16.1	88	W	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			29.60	751.8	50	10.0	67	W	16	7.2			10s			0.01	0.3		
Chicago, Ill.			29.85	758.2	87	30.6	63	S	8	3.6		2ck	0	SW		0	0		
Cincinnati, Ohio			30.08	764.0	60	15.6	60	SE	4	1.8		2c	0			0	0		
Cleveland, Ohio			30.03	762.7	55.3	12.9	71	SE	12	5.4		2ck	2s	SW		0	0		
Colorado Springs, Col.			29.65	753.1	10	—12.2	79	Calm	0	0			10s			0.01	0.3		
Corsicana, Texas			29.76	755.9	68	20.0	84	S	12	5.4			10n			0.03	0.8	Light rain.	
Davenport, Iowa			29.42	747.3	60	15.6	46	SE	8	3.6			10s		S	0.03	0.8		
Denver, Col.			29.71	754.6	17	— 8.3	67	S	5	2.2			10s			0	0		
Detroit, Mich.			30.04	763.0	39	3.9	81	Calm	0	0			Haze			0	0		
Dodge City, Kansas			29.56	750.6	24	— 4.4	74	NW	5	2.2		0	0			0	0		
Dubuque, Iowa			29.76	755.9	55	12.8	93	SW	4	1.8			10s			0.04	1.0		
Duluth, Minn.			29.75	755.6	36	2.2	80	NE	4	1.8			10s			1.55	39.4		
Eastport, Me.			30.28	769.1	32	0.0	60	N	8	3.6		8c	0			0	0		
Erie, Penn.			30.05	763.3	50	10.0	71	SE	16	7.2		2c	Haze	S		0	0		
Escanaba, Mich.			29.91	759.7	35	1.7	80	E	4	1.8			10s			0	0		
Fort Gibson, I. T.			29.77	756.1	55	12.8	62	NW	4	1.8			10s			1.05	26.7		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.49	749.0	18	— 7.8	84	W	32	14.3			10n			0.39	9.9	Light snow.	
Galveston, Texas			29.87	758.7	70	21.1	90	SE	12	5.4			10s			0	0		
Grand Haven, Mich.			29.91	759.7	50	10.0	71	SE	6	2.7		Haze	Haze			0	0		
Indianapolis, Ind.			29.96	761.0	63	17.2	51	S	8	3.6		0	Sm'e			0	0		
Indianola, Texas			29.84	757.9	70	21.1	95	S	16	7.2		0	8s			0	0		
Jacksonville, Fla.			30.29	769.4	66	18.9	84	S	4	1.8		0	0			0	0		
Keokuk, Iowa			29.67	753.6	62	16.7	71	SE	7	3.1		8c	2s	SW		0	0		
Key West, Fla.			30.21	767.3	74.1	23.4	56	E	16	7.2		Haze	Haze			0	0		
Kittyhawk, N. C.			30.32	770.1	47	8.3	92	NE	20	8.9			10s			0	0		
Knoxville, Tenn.			30.22	767.6	51	10.6	86	SE	3	1.3		0	Haze			0	0		
La Crosse, Wis.			29.72	754.9	52	11.1	86	SW	4	1.8			10n			0.09	2.3	Light rain.	
Leavenworth, Kan.			29.75	755.6	41	5.0	75	NW	8	3.6			10s			0.48	12.2		
Lexington, Ky.			30.12	765.0	60	15.6	65	S	16	7.2		Haze	Sm'e			0	0		
Long Branch, N. J.			30.37	771.4	38	3.3	71	S	3	1.3		0	8s			0	0		
Louisville, Ky.			30.04	763.0	65	18.3	39	SE	8	3.6		2c	Fog			0	0		
Lynchburg, Va.			30.36	771.1	47	8.3	74	E	4	1.8			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.90	759.4	38	3.3	81	SE	4	1.8			10n			0	0		
Memphis, Tenn.			29.95	760.7	65	18.3	78	SE	8	3.6		5cs	Haze	S		0	0		
Milwaukee, Wisconsin			29.98	761.5	40	4.4	82	E	4	1.8		8k	Sm'e	SW		0	0		
Mobile, Ala.			30.15	765.8	65	18.3	83	SE	5	2.2			10s			0	0		
Montgomery, Ala.			30.23	767.8	61.5	16.4	86	SE	4	1.8		10cs	Haze	W		0	0		
Morgantown, W. Virginia			30.14	765.5	52	11.1	72	Calm	0	0		2c	Haze	W		0	0		
Mt. Washington, N. H.			30.19	766.8	21	— 6.1	57	N	24	10.7		10s	0	NW		0	0		
Nashville, Tenn.			30.10	764.5	66	18.9	58	SE	8	3.6		8k	2s	SW		0	0		
New Haven, Conn.			30.37	771.4	38	3.3	71	SW	3	1.3			10s			0.01	0.3		
New London, Conn.			30.38	771.6	40	4.4	69	SW	3	1.3		2ck	5s	SW	W	0	0		
New Orleans, La.			30.07	763.8	67.5	19.7	82	SE	9	4.0		10k	0	SE		0	0		
Newport, R. I.																			
New York, N. Y.			30.36	771.1	36	2.2	80	S	2	0.9		2k	2s			1.02	25.9		
Norfolk, Va.			30.36	771.1	46	7.8	80	NE	6	2.7			10s			0	0		
North Platte, Neb.			29.52	749.8	16	— 8.9	74	W	15	6.7		0	0			1.22	31.0		
Omaha, Neb.			29.77	756.1	33	0.6	70	W	7	3.1			10s			0.42	10.7		
Oswego, N. Y.			30.21	767.3	41.6	5.3	72	SE	5	2.2			10s			0	0	Threatening	
Peck's Beach			30.37	771.4	42	5.6	83	E	6	2.7		7c	3			0	0		
Pembina, D. T.			29.41	747.0	35	1.7	94	E	18	8.0			10n			0.07	1.8	Light rain.	
Philadelphia, Penn.			30.37	771.4	39	3.9	63	S	1	0.4		Haze	2s			0	0		
Pike's Peak, C. T.			29.33	745.0	—12	—11.1	100	NW	36	16.1			10s			0	0		
Pittsburgh, Penn.			30.13	765.3	47	8.3	85	Calm	0	0		5c	Sm'e	NE		0	0		
Port Huron, Mich.			30.03	762.7	40	4.4	82	SW	7	3.1		5c	5s	W		0	0		
Portland, Maine			30.32	770.1	34	1.1	79	Calm	0	0		5ks	Haze			0	0		
Portland, Or.			30.18	766.6	37	2.8	81	SW	4	1.8			10s			0.16	4.1		
Punta Rassa, Fla.			30.27	768.8	66.6	19.2	71	E	10	4.5		1cs	Haze	E		0	0		
Rochester, N. Y.			30.11	764.8	47	8.3	69	SW	8	3.6		2k	8n	W		0	0		
Salt Lake City, Utah			29.98	761.5	23	— 5.0	60	Calm	0	0			10s			0.21	5.3		
Sandy Hook, N. J.			30.35	770.9	40	4.4	77	SE	3	1.3			10s		W	0	0		
San Diego, Cal.			30.24	768.1	43	6.1	60	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.25	768.3	46	7.8	84	Calm	0	0			10s			0	0		
Santa Fe, N. M.			29.53	750.0	15	— 9.4	48	SW	8	3.6		5c	Haze	SW		0	0		
Savannah, Georgia			30.31	769.9	58	14.4	87	Calm	0	0		0	Fog			0	0		
Shreveport, La.			29.88	758.9	71	21.8	80	S	11	4.9		Haze	8ks			0.04	1.0	Light rain.	
Springfield, Mass.			30.34	770.6	35	1.7	80	S	4	1.8		2ck	8ks		SW	0	0	Threatening	
St. Louis, Mo.			29.80	756.9	67	19.4	50	S	20	8.9		10ck	0	SE		0	0		
St. Marks, Fla.			30.25	768.3	64	17.8	94	SE	4	1.8		0	0			0	0		
St. Paul, Minn.			29.55	750.6	48	8.9	85	E	8	3.6			10s			0.74	18.8		
St. Paul's Island, Alaska			30.55	776.0	18	— 7.8	68	E	17	7.6		0	10k			0	0		
Squan Beach, N. J.			30.36	771.1	40	4.4	56	SE	5	2.2		8k	0	W		0	0		
Toledo, Ohio			30.06	763.5	42	5.6	83	E	1	0.4		Haze	Haze			0	0		
Tybee Island, Ga.			30.32	770.1	66	18.9	94	Calm	0	0		2c	0	SW		0	0		
Vicksburg, Miss.			30.04	763.0	66	18.9	90	SE	6	2.7			10s			0	0		
Virginia City, Mon.			29.57	751.1	10	—12.2	79	Calm	0	0			10s			0	0		
Washington, D. C.			30.37	771.4	41.5	5.3	87	SE	6	2.7			10s			0	0		
Wilmington, N. C.			30.33	770.4	50	10.0	86	NE	6	2.7			10s			0	0		
Wood's Hole, Mass.			30.36	771.1	42	5.6	65	W	7	3.1		5c	0	NW		0	0		
Wytheville, Va.			30.10	764.5	49	9.4	71	E	2	0.9			10s			0	0		
Yankton, D. T.			29.76	755.9	24	— 4.4	80	W	15	6.7		1k	0	S		1.70	43.2		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	76	24.4		NE	8	3.6		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	74	23.3		NE				8k	2k	NE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.92	760.0	72	22.2	67	E	6.0	2.7		1k	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	75	23.9		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.28	769.1			73	22.8		NNE	3	1.3		8k	2ck	NE		0.01	0.3	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.94	760.5	69	20.6	67	N	7.2	3.2		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.24	768.1	59	15.0	62	NE	6.3	2.8		0	2k			0.060	1.52		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	58	14.4	70	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	60	15.6	70	SE	2.4	1.1		0	5k			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.28	769.1	9.0	−12.8	100	N	4	1.8			10n			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	62	16.7	86	N	4.0	1.8		0	0			0	0		C. Partridge.
St. John's, Newfoundland			29.91	759.7	23	−5.0	86	NE					Haze			0.75	19.1		John Delaney.
St. John's, Porto Rico, W. I.			30.13	765.3	79.2	26.2	54	NE			4	1ks	0			0	0		Leon M. Acuña.
Fllyria, Ohio.			30.04	763.0	54	12.2	73	SE	4	1.8		0	2s			0	0		H. M. Redington.
Indianola, Iowa	28.81	731.8			51	10.6		SW					10kn			0	0		G. C. Carpenter.

Note.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

Note.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 9, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.06	761.0	61.5	16.4		NW			3		1			0	0		Charnot.
Algiers			29.82	757.5	68.0	20.0	46	WNW			2		8			Blank	Blank		Peter.
La Calle																			Kuntz.
Tunis			29.88	758.9	71.6	22.0	63	ESE			3		8			0.035	0.9		Jacques.
Sfax																			Chauvey.
Safda			29.88	759.0	59.7	15.4		NNW			2		2			0	0		Grosjean.
Tebessa			29.88	759.0	70.0	21.1		W			4		9			0	0		Colin.
Geriville			29.81	757.2	67.1	19.5		N			4		3			0	0		Bernadach.
Laghouat			29.80	757.0	75.2	24.0	33	SW			4		5			0	0		Poinsignon.
Biskra			29.88	758.9	74.7	23.7		E			4		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.88	759.0	59.9	15.5	40	SW			3		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.83	757.7	46.0	7.8	60	NE			2		10			0.433	11.0		I. R. Observatory.
Eperies			29.81	757.3	54.5	12.5	83	S			1		6c			0.638	16.30		Julius Mikolik.
Grats			29.84	757.9	56.5	13.6	54	SW			2		2			0.480	12.2		Andreas Rospini.
Hermannstadt			29.86	758.5	61.0	16.6	38	NW			5		5			0	0		Prof. Reissenberger.
Kremsmünster			29.86	758.5	49.1	9.5	58	W			2					0.110	2.8		Prof. C. Wagner.
Lemberg			29.87	758.6	45.5	7.5	92	S			10		10			0.039	1.0	Rain	Dr. T. Stanecki.
Nytregyhaza			29.90	759.5	58.6	14.8	64	S			3		2			0	0		Habzsuda Daniel.
Pola			29.98	761.4	55.6	12.8	68	S			2		6ks			0.8 7	21.02		I. R. Hydrographic Of'ce
Szegedin			29.89	759.2	60.8	16.0	49	S			2		6			0.067	1.70		Karl Stancel.
Trieste			29.95	760.8	53.6	12.0	73	NW			1		2			0	0		Prof. V. Farolfi.
Vienna			29.86	758.4	52.0	11.2	46	W			3		2			0.425	10.8		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.69	754.1			54.3	12.4	67	NE			1		9		ESE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.35	770.9	45.4	7.4		NNE	24	10.7			6			0	0		William Boswell.
Annaghill																			
Ardrossan			30.27	768.8	57.5	14.2		ENE			4		1						William McNeil.
Armagh Observatory			30.28	769.1	54.9	12.7		NNE	15	6.7			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.11	764.8	45.4	7.4		NNE			4		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.22	767.6	56.0	13.8		NNE			1–3		0						J. Dreyer, for L'd Rosse.
Bradford			30.08	764.0	42.1	5.6		N			2		10					Drizzling	J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			29.97	761.2	41.0	5.0		N			3		10					Rain	H. Todd.
Cape Town, (Cape Colony)			29.92	760.0	68.8	20.4		NW			3		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.95	760.7			76.0	24.4	57	NW	10	4.5			5						The Staff, for E. J. Stone
Cardington			30.00	762.0	42.0	5.6		NE					10					Rain	John McLaren.
Carlisle			30.22	767.6	45.1	7.3		N					10						T Bell, for J. Cartmell.
Chatham, School M. E			29.92	760.0	42.2	5.7		NE			2		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	81.2	27.3		S			1		9						Sgt. W. F. Hopkins
Dartmoor			30.03	762.7	38.0	3.3		NE			3		10					Drizzling	R. E. Power.
Donaghadee			30.25	768.3	52	11.1		NNE			4		0						J. Mac Gowan, Jr.
Dover			29.91	759.7	45	7.2		ENE			4		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.08	764.0	45.1	7.3		ENE	3.8	1.7			10					Squally	Thomas Mackereth.
Falmouth Observatory			30.00	762.0	45.2	7.3		NNE	32	14.3			10						The Staff.
Fort Napier, (Natal)			29.99	761.7	84.0	28.9		SE			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.19	766.8	54	12.2		N			5		0						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.92	760.0	63.2	17.3		SW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.25	768.3	53.2	11.8		NE			3		3						James Gray.
Great Yarmouth			29.95	760.7	41	5.0		NE			5		10					Rain	G. T. Watson.
Greenwich Royal Obs.			29.95	760.7	41.4	5.2		NE			1		10			0.85	21.0	Heavy rain	The Staff, for G. B. Airy.
Guernsey			29.92	760.0	43.5	6.4		NNE			3		8					Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.06	763.5	41.4	5.2		NNE					10					Drizzling	F. J. Pike, for L. J. Crossley.
Halifax, (Nova Scotia)			30.18	766.6	28.2	— 2.1		N			2		1						Corp'l J. Y. Thompson.
Helston			29.97	761.2	48	8.9		N			6		10						Dr. W. B. Mavle.
Holyhead			30.16	766.1	46	7.8		NNE			5		3					Mist	John Tilston.
Hull Park																			
Kew Observatory			29.95	760.7	42.0	5.8		NNE	17	7.6			10					Rain	The Staff.
Kingstown			30.24	768.1	47	8.3		N			5		3						George Mitchell.
Lampeter																			
Leicester Museum			30.05	763.3	41.5	5.3		NE			4		10					Rain	William J. Harrison
Llandudno			30.14	765.5	44.8	7.1		NE			3		10						Dr. James Nicol.
Malta, (Mediterranean)			30.01	762.2	66.0	18.9		SE			1		0						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.36	771.4	51	10.6		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.28	769.1	74.2	23.4		NE			3		4						Surg.-Maj. J. Jameson.
North Shields			30.21	767.3	45	7.2		NNE			5		9						John Wm. Irvine.
Nottingham			30.00	762.0	40.3	4.6		NNE			6		10n		NNE			Rain	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.02	762.5	40.1	4.5		NNE			6		10					Light rain	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.96	761.0	42	5.6		N			7		10					Drizzling	J. Lucas, for R. Main.
Plymouth			29.97	761.2	45.5	7.5		NE			2		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.15	765.8	54	12.2		NNE			4		2						W. Kennedy.
Saint Ann's Head			30.05	763.3	49	9.4		NNE			6		4						John C. Walker.
Saint Helier, (Jersey)			29.86	758.4	45.2	7.3		ENE			4		10					Rain	A. P. Amy.
Sandwick Manse (Orkneys)			30.40	772.1	45.0	7.2		N	11	4.9			2						Rev. C. Clouston
Scarborough			30.12	765.0	41.3	5.2		NE			5		10						F. Shaw.
Scutari, (Turkey)			30.01	762.2	59.0	15.0		SW			1		1						Sergt. W. H. Lyne.
Sheffield			30.07	763.8	41.0	5.0		NE			4		10			0	0	Drizzling	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.21	767.3	48.0	8.9		NE			6		7			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.97	761.2	41.5	5.3		NNE			1		10					Rain	Rev. C. J. Steward.
Stonyhurst Observatory			30.09	764.3	45.0	7.2		NE			5		10					Squally	The Staff.
Stornoway, Lews C. (Hebr.)			30.37	771.4	50	10.0		NNE			1		1						John Smith.
Strathfield Turgiss			29.96	761.0	44.4	6.9		NE			1		10					Rain	Rev Charles H. Griffith
Streatley Vicarage			29.87	758.7	44.0	6.7		NNE			3		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.32	770.1	49	9.4		NE			2		5						William Lawrence.
Taunton College																			
Thurso			30.38	771.6	50	10.0		N			1		3						John Trotter.
Truro Royal Institution			29.95	760.7	47	8.3		NE			5		8						W Newcombe.
Valencia Observatory			30.20	767.1	52.8	11.6		N	26	11.6			2						The Staff.
Wick																			
Wisbeach																			
Worthing			29.92	760.0	42.0	5.5		NE			2		10					Rain	William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.99	761.8	45.3	7.4	72	ENE			2		5						
Fanöe			30.03	762.7	55.1	7.3	86	NNE			4		10						
Godthaab, (Greenland)			29.67	753.6	12.3	—10.8		NE			7		2						
Stykkisholm, (Iceland)			29.89	759.2	50.4	10.3	83	S			7		5						
Thorshavn, (Faröe)			30.30	769.7	49.1	9.5	86	W			6		8						
Vestervig			30.07	763.7	44.2	6.8	88	NE			4		9						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.85	758.1	59.0	15.0	61						2ck						Normal School.
Alençon																			Normal School.
Amiens			29.87	758.7	58.6	14.8	78	E			3		2		E	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.90	759.5	52.3	11.3	55	S			1		8		SSE	0	0		Normal School.
Besançon			29.91	759.7	52.2	11.2	66	SW			3		5		SW	0.315	8.0		Normal School.
Bourges			29.86	758.5	50.7	10.4	77	E			1		2		E	0	0		Normal School.
Brest			29.85	758.1	46.2	7.9	83	NNE			4		10		NE	0.158	4.00	Rain	Naval Observatory.
Caen			29.87	758.8	49.5	9.7	71	N			2		2		NE	0.047	1.2		Normal School.
Carcassonne																			
Chartres			29.85	758.2	50.5	10.3		E			1		5		NE	0	0		Normal School.
Chaumont			29.89	759.1	50.2	10.1		S-E			2		m		SSE	0.038	3.5		Normal School.
Le Mans			29.90	759.5	50.4	10.2	60	SE			2		8		SE	0.335	8.5		Normal School.
Mirecourt			29.78	756.5	51.1	10.6	70	S-E			2		2		NE	0	0		Normal School.
Orleans																			Normal School.
Paris			29.88	758.9	50.2	10.1		ESE			2		8			0.047	1.2	Fog	National Observatory.
Parthenay			29.82	757.5	56.3	13.5	61	NE			2		5		NE	0.248	6.3		Normal School.
La Roche sur Yon			29.80	756.8	49.3	9.6	68	N			4		5		SW	0	0		Normal School.
Rouen			29.91	759.6	50.7	10.4	64	ENE			4		8		NE	0	0		Normal School.
Saint Lo			29.89	759.2	50.0	10.0	86	NE			3		10		E	0.173	4.4		Normal School.
Villefranche			29.83	757.6	59.2	15.1	76	SE			3		2		NW	0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.55	623.6			37.6	3.1	86	ESE	16.8	7.5			8		SW	0.032	0.8		—. Falguère.
Montsouris (near Paris)			29.87	758.7	50.4	10.2	67	N	0.4	0.2			8k		SE	0.028	0.7		Merié Davy.
Perpignan	29.69	754.2			55.8	13.2	72	ESE	7.4	3.3			7		NE	0.468	11.9		Dr. Fines.
Saint Maur, (near Paris)			29.87	758.8	53.2	11.8	50	E			1		8			0.032	0.8		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.86	758.4	51.3	10.7	58	SSE			1		8		ESE	0.004	0.1		C. Marquet.
Versailles, (near Paris)			29.87	758.6	48.6	9.2	73	SE			2		9			0.024	0.62		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.06	763.4	46.9	8.3	90	SE	5.4	2.4			3			0	0	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.82	757.4	52.7	11.5	55	W			2		9			0	0		Prof. Hoh.
Berlin			29.91	759.7	52.0	11.1	86	S			1		10			0.043	1.1	Rain	Prof. Arndt.
Breslau			29.87	758.7	51.4	10.8	68	NNW			4		9			0.055	1.4		Dr. P. Neugebauer.
Carlsruhe			29.86	758.5	57.2	14.0	50	NE			1		9			0	0		A. Senz.
Cassel			29.85	758.1	56.7	13.7	62	NW			2		1			0.7.0	18.3	Fog	Dr. H. Möhl.
Cologne			29.88	759.0	52.2	11.2	85	W			4		5			0	0		Dr. Garthe.
Emden			30.00	762.1	45.7	7.6	98	ENE			1		10			0.138	3.5		Prof. Prestel.
Frankfort on the Main			29.98	761.6	57.6	14.2	34	ENE			2		4			0	0		Physical Society.
Friedrichshafen			29.88	758.9	50.9	10.5	51	NW					6			0	0		M. Wilhelm.
Hamburg			29.95	760.7	43.3	6.3	96	NE			4		10			0.130	3.3		W. Reinert.
Kiel			29.98	761.6	42.6	5.9	89	NE			4		10			0	0		Prof. G. Karsten.
Königsberg			29.97	761.2	54.4	12.7	61	E			2		7			0	0		Prof. E. Luther.
Köslin			30.00	764.2	50.9	10.5		SE			4		8			0	0		Dr. T gert.
Leipsic			29.91	759.7	48.7	9.3	66	WNW			2		10			0.079	2.0		Prof. Bruhns.
Münster			29.89	759.2	54.5	12.5	80	SW			2		5			0	0		Prof. E. Heis.
Posen			29.88	758.9	44.4	6.9	93	S			4		10			0.430	11.0		Dr. Magener.
Strassburg, (in Alsace)			29.89	759.2	54.9	12.7	42	NE					4			0.079	2.0		Hartwig and Tülk.
Stuttgart			29.85	758.1	56.3	13.5	47	N					6			0	0		Mr. Würth.
Thorn			29.88	759.0	43.2	6.2	94	E			4		10			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.84	757.8	54.7	12.6	48	S			3		5			0	0		Prof. Flesch.
Wustrow			29.96	760.9	45.0	7.2	80	ENE			3		5			0.008	0.2		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalleri			29.88	758.9	52.2	11.2	66	NNW			2		7	SE		0.591	15.0		
Mondovi			29.85	758.2	52.0	11.1	56	NE			4		7			0	0		
Genoa			29.91	759.8	55.0	12.8	62	SE	7.4	3.3			10	S		0	0		
Pavia			29.89	759.2	54.5	12.5	50	E			8		9	SW		0	0		
Verona			29.90	759.5	59.0	15.0	52	E			1		10			0	0		
Padua			29.91	759.6	56.1	13.4	47	N	4.3	1.9			5	ENE		0	0		
Parma																			
Bologna			29.93	760.2	62.1	16.7	25	SSW			8		4	E		0	0		
Livorno			29.93	760.1	55.5	15.3	60	S	3.8	1.7			10			0	0		
Urbino			29.95	760.7	55.6	13.1	50	SSW			6		8			0	0		
Ancona			29.97	761.1	56.5	13.6	59	SE			2		4			0	0		
Siena			29.93	760.2	55.4	13.0	51	SW	3.8	1.7			5	SW		0	0		
Rome			29.90	761.8	63.0	17.2	48	S	8.1	3.6			5	SW		0	0		
Naples, O. U.			30.04	763.1	63.9	17.7	75	S			4		9	W		0	0		
Lecce			30.07	763.8	61.2	16.2	62	SW	2.5	1.1			8			0	0		
Cosenza			30.05	763.3	64.0	17.8	48	W			2		2	NE		0	0		
Catania, (Sicily)			30.09	764.3	61.2	16.2	71	SE			2		0	W		0	0		
Riposto																			
Palermo			29.88	759.1	67.6	19.7	56	NE			2		5			0	0		
Sub-Series.																			
Naples, S. R.	29.50	749.2			57.2	14.0	82	SW			1		ck	SW		0.120	3.2		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.94	760.4	48.6	9.2		NW			2								
Groningen			29.88	758.9	45.5	7.5		NE			2								
Helder			29.93	760.1	44.6	7.0		NE			2								
Utrecht			29.86	758.5	55.9	13.3		SSW			2		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.01	762.3	54.7	12.6	48	WNW	6.9	3.1			0			0	0		
Christiania			30.17	766.2	52.2	11.2	52	ESE	7.2	3.2			0			0	0		
Tromsö			29.95	760.8	41.7	5.4	95	SSW			2		10			0	0	Rain	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.70	754.4			57.2	14.0	50	N	17.4	7.8			7						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.87	758.6	45.0	7.2	84	E	7	3			10						Astronomical Obs.
Wilna			30.07	763.7	50.0	10.0	54	Calm	0	0			5						Astronomical Obs.
Dorpat			30.26	768.5	43.0	6.1	56	ESE	9	4			0						Physical Cabinet.
St. Petersburg			30.25	768.4	44.6	7.0	55	NE	2	1			1						Central Physical Obs.
Kieff			30.15	765.8	46.0	7.8	71	SE	11	5			5						Physical Cabinet.
Nikolaiev			30.08	763.9	57.7	14.3	56	ESE	8	3.5			2						
Kertch			30.05	763.2	55.6	13.1	58	E	13	6			2						Lagorio.
Moscow			30.20	767.1	41.5	5.3	47	NNW	4	2			7						Meteorological Obs.
Lugan			30.05	763.2	41.0	5.0	69	N	8	3.5			9						Meteorological Obs.
Archangel			30.21	767.4	46.8	8.2	70	Calm	0	0			0						Ogorodnikof.
Tiflis			29.94	760.4	63.7	17.6	30	Calm	0	0			1						Physical Obs.
Astrakhan			30.16	766.0	48.6	9.2	57	NW	4	2			4						Sebastianof.
Kasan			29.92	759.9	39.2	4.0	72	N	4	2			9						Physical Cabinet.
Orenburg			30.00	762.1	40.6	4.8	59	NE	8	3.5			10						Tschernischef.
Ekaterinburg			29.85	758.3	42.3	5.7	57	NW	4	2			9						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.76	755.9	37.8	3.2	52	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.55	750.6	38.8	3.8	73	N	10	4.5			10						Sarks.
Irkutsk																			Usolzef.
Oorga			30.20	767.1	9.0	—12.8	90	Calm	0	0			0						Mossin.
Peking, (China)			29.93	760.2	40.1	4.5	39	NW	17	7.5			0						Physical Observatory.
Nertchinsk			29.98	761.5	15.4	— 9.2	84	SE	8	3.5			5						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.90	759.5	47.7	8.7	67	W	6.7	3.0			10			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.19	766.8	41.2	5.1	77	SW			1		2			0	0		
Hernosand			30.25	768.4	42.1	5.6	60	SE			2		2			0	0		
Stockholm			30.16	766.0	40.3	4.6	68	ENE			2		4			0	0		
Wisby			30.10	764 5	41.0	5.0	84	SSE			1		0			0	0		
Sub-Series.																			
Upsala			30.21	767.2	42.8	6.0	67	NE			2		0						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.47	723.1			44.8	7.1	64	NNE			2		3			0.252	6.4		The Observatory.
Zurich	28.26	717.8			46.4	8.0	70	W			1		5			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.1mm.; Thermometer, – 3°.9 C.; Relative Humidity, +6 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.87	758.7	63.3	17.4	83	NW			3		5						
Constantinople			30.03	762.7	60.4	15.8	64	S	2	1			0			0	0		
Fao, (Persian Gulf)			30.02	762.5	67.3	19.6		SE			3		10						
Salonica			29.98	761.6	72.0	22.2		W			1		0						
Valona			30.02	762.4	72.5	22.5		S			2		2						
Varna			30.04	763.0	59.0	15.0		SE			3		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.13	765.3	34	1.1		NE	5	2.2			4s		NE	0.10	2.5		
Chatham, N. B.			30.26	768.6	27	– 2.8	67	NW	8	3.6		0	0			0	0		
Charlottetown, P. E. Island			30.19	766.8	25	– 3.9	72	N	15	6.7		0	0			0	0		
Fort Garry, Manitoba			29.31	744.5	28	– 2.2	88	SE	8	3.6		5k	2ks	SE	SE	0	0		
Halifax, N. S.			30.12	765.0	28	– 2.2	83	N	6	2.7		0	0			0	0		
Kingston, Ontario			30.07	763.8	38	3.3	87	E	3	1.3		10c	0			0	0		
Montreal, Quebec			30.21	767.3	31	– 0.6	75	NE	5	2.2		2cs	0	NE		0	0		
Ottawa, Ontario			30.11	764.8	33	0.6	71	NE	6	2.7		10ck	0	NE		0	0		
Parry Sound, Ontario			29.90	759.4	41	5.0	71	SE	14	6.3			10n		SE	0	0	Threatening	
Port Dover, Ontario			29.91	759.7	35	1.7	100	N	14	6.3			10n			0.05	1.3	Light rain	
Port Stanley, Ontario			29.89	759.2	44	6.7	87	E	6	2.7			10n		SW	0.01	0.3		
Quebec, Quebec			30.31	769.9	28	– 2.2	65	Calm	0	0		0	0			0	0		
Saugeen, Ontario			29.80	756.9	44	6.7	97	S	6	2.7			10ks		S	0.06	1.5		
Stayner			29.88	758.0	44	6.7	92	SE	13	5.8			10n		S	Blank	Blank	Light rain	
Sydney, C. B.			30.08	764.0	27	– 2.8	64	N	6	2.7		0	2ks		N	0	0		
Toronto, Ontario			29.94	760.5	37	3.8	83	NE	13	5.8			10n		E	Blank	Blank	Light rain	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.18	766.6	35	1.7	90	Calm	0	0		10k	Fog	W		0	0		
Alpena, Mich.			29.77	756.1	38	3.3	90	NW	1	0.4			10s			0.04	1.0		
Atlantic City, N. J.			30.15	765.8	42	5.6	100	NE	12	5.4			Fog			0	0		
Augusta, Ga.			30.22	767.6	61	16.1	82	S	1	0.4		2c	0	SW		0	0		
Baltimore, Md.			30.13	765.3	49	9.4	93	NE	3	1.3			8s			0	0		
Barnegat, N. J.			30.14	765.5	42	5.6	83	NE	6	2.7		2c	5s			0	0		
Benton, Montana			29.98	761.5	32	0.0	79	SW	16	7.2			10s			0	0		
Bismarck, Dakota			29.51	749.5	14	—10.0	82	NW	17	7.6			10n			0.90	22.9	Light snow.	
Boston, Mass.			30.26	768.6	40	4.4	73	NE	4	1.8		0	1ks			0.01	0.3		
Breckenridge, Minn.			29.53	750.0	23	— 5.0	88	SW	32	14.3			10s			0	0		
Buffalo, N. Y.			29.87	758.7	46	7.8	76	W	4	1.8			10ks			0	0		
Burlington, Vt.			30.29	767.1	38	3.3	72	S	4	1.8		2c	1s			0	0		
Cairo, Ill.			30.18	766.6	48	8.9	77	W	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			30.16	766.1	59	15.0	94	SW	12	5.4		Haze	Sm'e			0	0		
Cape Henry, Va.			30.09	764.3	64	17.8	67	SW	13	5.8		0	Haze			0	0		
Cape May, N. J.			30.13	765.3	45	7.2	92	E	12	5.4			10s			0	0		
Charleston, S. C.			30.26	768.6	65	18.3	90	SW	4	1.8		2c	Sm'e			0	0		
Cheyenne, W. T.			29.85	758.2	15	— 9.4	67	Calm	0	0		0	0			0	0		
Chicago, Ill.			29.95	760.7	45	7.2	60	SW	11	4.9		0	0			0.20	5.1		
Cincinnati, Ohio			30.08	764.0	56	13.3	56	NW	12	5.4		5ks				0	0		
Cleveland, Ohio			29.90	759.4	51	10.6	80	W	16	7.2			10ks		SW	0	0		
Colorado Springs, Col.			29.84	757.9	24	— 4.4	74	S	4	1.8		0	0			0	0		
Corsicana, Texas			30.07	763.8	50	10.0	86	SE	2	0.9		5ks	0			0.40	10.2		
Davenport, Iowa			29.97	761.2	39	3.9	63	SW	16	7.2		0	Sm'e			0.40	10.2		
Denver, Col.			29.94	760.5	25	— 3.9	62	S	7	3.1		0	0			0	0		
Detroit, Mich.			29.89	757.9	49	9.4	71	W	18	8.0		2k	1ks	W		0	0		
Dodge City, Kansas			29.70	754.4	40	4.4	82	SW	8	3.6		0	0			0	0		
Dubuque, Iowa			29.89	759.2	35	1.7	88	NW	8	3.6		0	0			0.43	10.9		
Duluth, Minn.			29.54	750.3	30	— 1.1	78	SW	8	3.6			10s			0.19	4.8		
Eastport, Me.			30.29	769.4	29	— 1.7	78	NE	8	3.6		0	0			0	0		
Erie, Penn.			29.82	757.4	55	12.8	74	S	12	5.4			10ks			0.07	1.8		
Escanaba, Mich.			29.71	754.6	38	3.3	72	SW	18	9.0		1k	Haze	W		0.63	16.0		
Fort Gibson, I. T.			30.10	764.5	46	7.8	48	E	8	3.6		0	0			0.30	7.6		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.79	756.7	23	— 5.0	73	W	24	10.7		0	0			0.02	0.5		
Galveston, Texas			30.07	763.8	63	17.2	73	E	14	6.3		0	0			0.07	1.8		
Grand Haven, Mich.			29.92	760.0	42	5.6	65	SW	14	6.3		0	0			0.17	4.3		
Indianapolis, Ind.			30.05	763.3	50	10.0	64	W	6	2.7		5k	0	W		0.15	3.8		
Indianola, Texas			30.08	764.0	63	17.2	72	NE	20	8.9		0	0			0.01	0.3		
Jacksonville, Fla.			30.27	768.8	68	20.0	79	S	8	3.6		0	0			0	0		
Keokuk, Iowa			29.99	761.7	43	6.1	66	W	14	6.3		0	0			0.13	3.3		
Key West, Fla.			30.22	767.6	74.3	23.5	64	E	12	5.4			5ks			0	0		
Kittyhawk, N. C.			30.11	764.8	60	15.6	71	W	16	7.2		1c	0	W		0	0		
Knoxville, Tenn.			30.08	764.0	59	15.0	81	W	8	3.6			10s			0.10	2.5		
La Crosse, Wis.			29.78	756.4	37	2.8	62	SW	17	7.6		0	0			0.45	11.4		
Leavenworth, Kan.			30.05	763.3	38	3.3	63	SW	6	2.7		0	0			0.01	0.3		
Lexington, Ky.			30.09	764.3	57	13.9	75	NW	21	9.4			10s			0.10	2.5		
Long Branch, N. J.			30.21	767.3	39	3.9	91	NE	6	2.7			10ks		NE	0	0		
Louisville, Ky.			30.12	765.0	53	11.7	61	SW	4	1.8		0	0			0	0		
Lynchburg, Va.			30.07	763.8	59	15.0	70	Calm	0	0		10ck	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.66	753.4	39	3.9	73	S	4	1.8			10s			0.30	7.6		
Memphis, Tenn.			30.20	767.1	52	11.1	93	NW	2	0.9		5k	0	NW		0.84	21.3		
Milwaukee, Wisconsin			29.91	759.7	40	4.4	73	SW	12	5.4		2k	0	NW		0.86	21.8		
Mobile, Ala.			30.17	766.3	71	21.8	80	S	9	4.0		2ck	2s	S		0	0		
Montgomery, Ala.			30.18	766.6	67	19.4	87	S	6	2.7		10cs	Haze	SW		0	0		
Morgantown, W. Virginia			29.94	760.5	62	16.7	55	S	7	3.1			10s			0	0	Threatening	
Mt. Washington, N. H.			30.15	765.8	25	— 3.9	75	N	8	3.6		2c	2s	NW		0	0		
Nashville, Tenn.			30.15	765.8	59	15.0	65	NW	3	1.3		5k	0	W		0.14	3.5		
New Haven, Conn.			30.25	768.3	40	4.4	64	NE	7	3.1		1c	Sm'e	N		0.03	0.8		
New London, Conn.			30.27	768.8	41	5.0	74	NE	3	1.3		Haze	0			0.02	0.5		
New Orleans, La.			30.11	764.8	67	19.4	89	SE	7	3.1		5cs	0	SW		0	0		
Newport, R. I.																			
New York, N. Y.			30.21	767.3	40	4.4	81	E	12	5.4			10s			0	0		
Norfolk, Va.			30.10	764.5	60.5		68	SW	12	5.4		2c	Haze			0	0		
North Platte, Neb.			29.71	754.6	26	— 3.3	75	SW	12	5.4		2c	0	W		0	0		
Omaha, Neb.			29.94	760.5	35	1.7	67	SW	10	4.5		0	0			0	0		
Oswego, N. Y.			30.01	762.2	44.5	6.9	71	SSE	16	7.2			10s			0	0	Threatening	
Peck's Beach			30.17	766.3	42	5.6	87	E	15	6.7			10s			0	0		
Pembina, D. T.			29.23	742.2	30	— 1.1	89	SE	13	5.8			10s			0.15	3.8		
Philadelphia, Penn.			30.19	766.8	41	5.0	91	E	2	0.9			10s		E	0	0		
Pike's Peak, C. T.			29.68	753.9	— 9	—22.8	100	SW	20	8.9			5s			0	0		
Pittsburgh, Penn.			29.91	759.7	62	16.7	50	S	6	2.7			10ks			0	0		
Port Huron, Mich.			29.84	757.9	52	11.1	79	W	14	6.3			10s			0.01	0.3		
Portland, Maine			30.31	769.9	35	1.7	45	NE	9	4.0		8ck	Haze	NW		0	0		
Portland, Or.			30.37	771.4	37	2.8	90	Calm	0	0			Fog			0	0		
Punta Rassa, Fla.			30.27	768.8	70	21.1	75	SE	12	5.4		Haze	Sm'e			0	0		
Rochester, N. Y.			29.89	759.2	45	7.2	84	SE	12	5.4		2ck	Haze	SW		0	0		
Salt Lake City, Utah			30.05	763.3	32	0.0	79	Calm	0	0			10s			0.13	3.3		
Sandy Hook, N. J.			30.19	766.8	41	5.0	39	E	12	5.4			10ks		E	0	0		
San Diego, Cal.			30.07	763.8	44	6.7	67	Calm	0	0		0	0			0	0		
San Francisco, Cal.			30.18	766.6	48	8.9	92	SW	4	1.8			Fog			0	0		
Santa Fe, N. M.			29.64	752.8	27	- 2.8	42	S	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			30.27	768.8	68	20.0	75	S	10	4.5		2c	Sm'e			0	0		
Shreveport, La.			30.14	765.5	51	10.6	93	Calm	0	0			Fog			0.46	11.7	Fog	
Springfield, Mass.			30.25	768.3	40.5	4.7	70	N	4	1.8		0	5ks			0.06	1.5		
St. Louis, Mo.			30.13	765.3	44	6.7	67	SW	10	4.5		0	0			0.78	19.8		
St. Marks, Fla.			30.25	768.3	62	16.7	94	S	1	0.4		0	5ks			0	0		
St. Paul, Minn.			29.60	751.8	32	0.0	69	SW	12	5.4			10s			0.14	3.5		
St. Paul's Island, Alaska			30.28	769.1	18	— 7.8	68	NE	21	9.4		0	8k			0	0		
Squan Beach, N. J.			30.17	766.3	40	4.4	90	NE	5	2.2		0	2s		NE	0	0		
Toledo, Ohio			29.96	761.0	53	11.7	66	W	16	7.2		2c	8s			0	0	Clearing	
Tybee Island, Ga.			30.28	769.1	68	20.0	90	SW	14	6.3		1c	0	W		0	0		
Vicksburg, Miss.			30.20	767.1	56	13.3	87	Calm	0	0			10s			0.93	23.6		
Virginia City, Mon.			29.73	755.1	22	— 5.6	72	SW	4	1.8		0	2s			0	0		
Washington, D. C.			30.12	765.0	46.5	8.1	100	NE	5	2.2			10s			0	0		
Wilmington, N. C.			30.21	767.3	65	18.3	78	W	19	8.5		5c	0	NW		0	0		
Wood's Hole, Mass.			30.27	768.8	42	5.6	74	Calm	0	0		0	8s			0	0		
Wytheville, Va.			29.91	759.7	53	11.7	73	Calm	0	0			10s			0	0		
Yankton, D. T.			29.84	757.9	34	1.1	69	W	10	4.5		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	83	28.3		E	5	2.2		5c	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.02	762.5	74	23.3		NE				10fc	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.96	761.0	75	23.9	76	E	9.6	4.3		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.28	769.1	75	23.9		Calm	0	0		2c	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			75	23.9		NNE	7	3.1		0	1k			0.001	0.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.94	760.5	73	22.8	67	NE	7.2	3.2		0	0			0	0		Robert Mason.
St. Georges, Bermudas			30.13	765.3	62.5	16.9	80	NNW	7.6	3.4		8k	5k	NW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	61	16.1	70	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.04	763.0	59	15.0	84	Calm	0	0		0	5n			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.68	753.9	22.5	− 5.3	73	E	25	11.2			10n			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.11	764.8	59	15.0	93	NNE	2.0	0.9		2c	0	NNE		0	0		C. Partridge.
St. John's, Newfoundland			29.90	759.4	28	− 2.2	87	W					Haze			0.25	6.3	Snow	John Delaney.
St. John's, Porto Rico, W. I.			30.15	765.9	79.2	26.2	52	NE			4	3k	0	SW		0.008	0.20		Leon M. Acuña.
Illyria, Ohio.			29.90	759.4	57.5	14.2	55	W	20	8.9			10n			0	0		H. M. Redington.
Indianola, Iowa	29.08	738.6			35	1.7		SW				0	0			0.18	4.6		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 10, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.96	761.0	64.8	18.2		ESE			2		1			0	0		Charnot.
Algiers			29.93	760.3	61.5	16.4	73	N			1		6			0.024	0.6		Peter.
La Calle																			Kuntz.
Tunis			29.99	761.8	66.9	19.4	51	N			4		10			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.89	759.1	56.1	13.4		NNW			2		6			0	0		Grosjean.
Tebessa			29.85	758.1	67.1	19.5		E			3		9			0	0		Colin.
Geriville			29.78	756.4	56.5	13.6		NE			2		2			0	0		Bernadach.
Laghouat			29.76	755.8	65.3	18.5	34	NE			2		10			0	0		Poinsignon.
Biskra			29.88	759.0	66.7	19.3		NW			4		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.06	763.4	61.2	16.2	51	NE			1		10			0.004	0.1	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.14	765.6	47.3	8.5	83	W			3		10			0.075	1.9		I. R. Observatory.
Eperies			30.06	763.4	53.6	12.0	74	Calm			0		10c			0.433	11.0		Julius Mikolik.
Gratz			30.06	763.4	56.3	13.5	60	S			2		8			0	0		Andreas Rospini.
Hermannstadt			30.02	762.5	45.3	7.4	41	SSW			1		5			0.012	0.30		Prof. Reissenberger.
Kremsmünster			29.92	759.9	54.3	12.4	68	E			5					0	0		Prof. C. Wagner.
Lemberg			30.07	763.7	52.7	11.8	66	NW			1		6			0.016	0.4		Dr. T. Stanecki.
Nyiregyhaza			30.14	765.5	62.2	16.8	53	N			1		2			0	0		Habsuda Daniel.
Pola			30.03	762.7	54.0	12.2	95	SE			3		10s			0.086	2.19		I. R. Hydrographic Office
Szegedin			30.04	763.1	64.8	18.2	43	S			1		4			0	0		Karl Stancel.
Trieste			30.04	762.9	54.3	12.4	82	E			1		8			0.272	6.9	Drizzling	Prof. V. Farolfi.
Vienna			30.04	762.9	56.1	13.4	59	ESE			1		3			0.012	0.3		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.80	757.0			54.3	12.4	69	E			2		9		ENE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.49	774.4	46.7	8.2		NE	17	7.6			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.43	772.9	54	12.2		ENE			3		2					Haze	William McNeil.
Armagh Observatory			30.40	772.1	50.4	10.2		NNE	15	6.7			5						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.27	768.8	49.6	9.9		NE			3		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.35	770.9	49.0	9.4		NNE			1		10						J. Dreyer, for L'd Rosse.
Bradford			30.28	769.1	41.9	5.5		N			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.17	766.3	45.6	7.2		NE			3		10						H. Todd.
Cape Town, (Cape Colony)			29.83	757.7	74.4	23.6		NW			3		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.86	758.4			75.5	24.2	67	NW	7	3.1			10						The Staff, for E. J. Stone
Cardington			30.19	766.8	43.0	6.1		NE					10						John McLaren.
Carlisle			30.34	770.6	44.8	7.1		NE					4			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E			30.08	764.0	43.8	6.6		NE			2		10					Rain	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	81.3	27.4		SE			1		4						Sgt. W. F. Hopkins
Dartmoor			30.27	768.8	38.0	3.3		NE			5		10					Drizzling	R. E. Power.
Donaghadee			30.38	771.6	49	9.4		NNE			5		0						J. Mac Gowan, Jr.
Dover			30.06	763.5	44	6.7		NNE			5		9						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.26	768.6	46.4	8.0		NE	10.6	4.7			7					Drizzling	Thomas Mackereth.
Falmouth Observatory			30.17	766.3	45.6	7.6		NE	16	7.2			10						The Staff.
Fort Napier. (Natal)			29.88	758.9	83.2	28.4		N			4		9						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.23	767.8	53	11.7		NE			3		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.96	761.0	63.8	17.7		SSW			4		2						Sergt. E. G. Baker.
Glasgow Observatory			30.42	772.7	51.2	10.7		NE			4		5					Squally	James Gray.
Great Yarmouth			30.16	766.1	41	5.0		ENE			5		10						G. T. Watson.
Greenwich Royal Obs.			30.11	764.8	45.4	7.4		ENE			5		10					Rain	The Staff, for G. B. Airy.
Guernsey			30.08	764.0	46.0	7.8		NE			2		8						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.28	769.1	41.6	5.3		NNE					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.96	761.0	32.1	0.1		SW			3		10					Snow	Corp'l J. V. Thompson.
Helston			30.11	764.8	48	8.9		NE			4		10						Dr. W. B. Moyle.
Holyhead			30.29	769.4	49	9.4		NE			4		2						John Tilston.
Hull Park																			
Kew Observatory			30.12	765.0	48	8.9		NNE	23	10.3			10					Threatening	The Staff.
Kingstown			30.37	771.4	45	7.2		NNE			4		9						George Mitchell.
Lampeter																			
Leicester Museum			30.24	768.1	43.7	6.5		NE			2		10						William J. Harrison
Llandudno			30.29	769.4	47.8	8.8		NE			2		10						Dr. James Nicol.
Malta, (Mediterranean)			30.01	762.2	64.8	18.2		SE			4		4k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.50	774.7	52	11.1		Calm			0		5						William D. Penny.
Nassau, (Bahamas)			30.30	769.6	72.4	22.4		Calm			0		7						Surg.-Maj. J. Jameson.
North Shields			30.40	772.1	42	5.6		NNE			3		9						John Wm. Irvine.
Nottingham			30.25	768.3	45.5	7.5		NNE			3		10kd		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St. Mary's College			30.23	767.8	42.0	5.6		NNE			6		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.14	765.5	45	7.2		NE			3		10					Mist	J. Lucas, for R. Main.
Plymouth			30.14	765.5	46.0	7.8		NE			3		10					Showery	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.27	768.8	49	9.4		ENE			4		8						W. Kennedy.
Saint Ann's Head			30.20	767.1	46	7.8		NE			3		10						John C. Walker.
Saint Helier, (Jersey)			30.04	763.0	49.8	9.9		NE			4		10						A. P. Amy.
Sandwick Manse (Orkneys)			30.52	775.2	46.1	7.8		NW	15	6.7			3						Rev. C. Clouston
Scarborough			30.33	770.4	42.0	5.6		NNE			3		10						F. Shaw.
Scutari, (Turkey)			30.09	764.3	59.2	15.1		SW			1		1						Sergt. W. H. Lyne.
Sheffield			30.29	769.4	44.1	6.7		NE			4		9			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.38	771.6	48.8	9.3		NE			5		6			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.16	766.1	41.5	5.3		NNE			2		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.30	769.6	45.9	7.7		NE			4		6					Haze	The Staff.
Stornoway, Lews C. (Hebr)			30.52	775.2	50	10.0		NE			1		4						John Smith.
Strathfield Turgiss			30.12	765.0	45.9	7.7		E			1-2		10					Rain	Rev Charles H. Griffith
Streatley Vicarage			30.14	765.5	45.6	7.0		NNE			3		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.47	773.9	48	8.9		N			1		10						William Lawrence.
Taunton College																			
Thurso			30.53	775.4	47	8.3		NNW			1		6						John Trotter.
Truro, Royal Institution			30.11	764.8	46	7.8		NE			4		10						W Newcombe.
Valencia Observatory			30.30	769.6	50.7	10.4		NE	19	8.5			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.09	764.3	44.3	6.8		NE			1		10					Rain	William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force. 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.22	767.6	46.8	8.2	71	N			2		1						
Fanöe			30.23	767.9	55.8	13.2	47	E			4		1						
Godthaab, (Greenland)			29.63	752.7	39.0	3.9		SSE			2		8						
Stykkisholm, (Iceland)			30.42	772.7	51.1	10.6	89	S			2		8					Fog	
Thörshavn, (Faröe)			30.54	775.8	49.5	9.7	82	Calm			0		4						
Vestervig			30.25	768.4	54.0	12.2	67	NNE			4		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.15	765.9	53.2	11.8	83						2ck						Normal School.
Alençon																			Normal School.
Amiens			29.99	761.8	56.8	13.8	73	NE			2		2		ENE	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.97	761.3	55.4	13.0	47	NNE			5		2		E	0	0		Normal School.
Besançon			29.85	758.3	50.4	10.2	57	ENE			3		8		NE	0	0		Normal School.
Bourges			29.84	757.8	55.4	13.0	72	E			1		2		E	0	0		Normal School.
Brest			30.02	762.6	48.0	8.9	78	NNE			3		10		NE	0.020	0.50		Naval Observatory.
Caen			29.97	761.3	47.5	8.6	78	NNE			6		5		NE	0	0		Normal School.
Carcassonne																			
Chartres			29.91	759.7	56.5	13.6		NE			6		5		NE	0.236	6.0		Normal School.
Chaumont			29.82	757.4	53.8	12.1		ENE			6		kn		ENE	0	0		Normal School.
Le Mans			29.98	761.5	57.6	14.2	45	NE			3		8		E	0.472	12.0		Normal School.
Mirecourt			29.75	755.7	51.4	10.8	70	NNW			4		10		SSW	0.079	2.0		Normal School.
Orleans																			Normal School.
Paris			29.91	759.7	58.3	14.6		NNE			3		5		NE	0.071	1.8		National Observatory.
Parthenay			29.77	756.1	50.0	10.0	85	SW			2		5		NE	0.248	6.3		Normal School.
La Roche sur Yon			29.93	760.1	57.9	14.4	49	NE			2		2		SW	0	0		Normal School.
Rouen			29.99	761.0	57.2	14.0	57	NNE			6		1		E	0	0		Normal School.
Saint Lo			30.08	763.9	49.6	9.8	80	NE			2		10		NE	0	0		Normal School.
Villefranche			29.93	760.2	49.1	9.5	84	SE			3		8		S	0	0		Normal School.

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.63	625.7			38.8	3.8	77	SW	18.6	8.3			8		SSW	0.209	5.3		—. Falguère.
Montsouris (near Paris)			29.90	759.5	57.0	14.2	45	NNE	11.6	5.2			8k		E	0.102	2.6		Merié Davy.
Perpignan	29.77	756.1			55.6	13.0	73	SSE	11.4	5.1			6		SW	1.110	28.2		Dr. Fines.
Saint Maur, (near Paris)			29.89	759.2	64.0	17.6	26	NE			3		5			0.016	0.4		E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.99	761.7	60.4	15.8	32	ENE			3		5		ENE	0	0		C. Marquet.
Versailles, (near Paris)			29.91	759.8	58.6	14.8	47	NE			4		8			0.033	1.09		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.18	766.6	45.5	7.5	89	E	4.0	1.8			0			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.93	760.2	54.5	12.5	56	NE			3		3			0	0		Prof. Hoh.
Berlin			30.15	765.7	51.1	10.6	75	E			1		10			0.150	3.8		Prof. Arndt.
Breslau			30.18	766.6	54.3	12.4	60	N			2		9			0	0		Dr. P. Neugebauer.
Carlsruhe			29.88	758.9	55.6	13.1	52	NE			5		10			0	0		A. Senz.
Cassel			30.00	762.0	52.7	11.5	75	E			1		9			0	0		Dr. H. Möhl.
Cologne			30.00	761.9	57.4	14.1	69	SE			2		3			0	0		Dr. Garthe.
Emden			30.21	767.4	49.5	9.7	77	ENE			2		10			0	0		Prof. Prestel.
Frankfort on the Main			30.05	763.2	59.9	15.5	41	E			3		8			0	0		Physical Society.
Friedrichshafen			29.77	756.2	58.1	14.5	39	SE					7			0	0		M. Wilhelm.
Hamburg			30.23	767.7	45.1	7.3	86	NE			4		10			0.012	0.3		W. Reinert.
Kiel			30.23	767.8	44.4	6.9	79	ENE			3		9			0	0		Prof. G. Karsten.
Königsberg			30.18	766.6	55.4	13.0	63	E			2		8			0	0		Prof. E. Luther.
Köslin			30.35	771.0	49.1	9.5		NE			4		3			0	0		Dr. Tigert.
Leipsic			30.12	765.0	50.0	10.0	74	ENE			3		9			0.032	0.8		Prof. Bruhns.
Münster			30.14	765.6	48.7	20.4	85	NW			2		10			0	0		Prof. E. Heis.
Posen			30.17	766.4	50.7	10.4	76	N			2		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.87	758.6	57.9	12.8	42	NE					10			0.102	2.6		Hartwig and Tülk.
Stuttgart			29.82	757.5	57.9	14.4	32	NE					9			0.016	0.4		Mr. Würth.
Thorn			30.15	765.9	52.9	11.6	80	N			5		6			0	0		Dr. Rosenbalg.
Treves, (Trier)			29.87	758.7	59.7	15.4	41	NE			6		10			0.256	6.5		Prof. Flesch.
Wustrow			30.24	768.2	44.1	6.7	87	NNE			7		7			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			29.98	761.5	44.1	6.7	87	WNW			2		9	NE		0.532	13.5		
Mondovi			29.99	761.7	44.6	7.0	67	W			2		1	SW		0.602	15.3		
Genoa			29.95	760.8	54.9	12.7	71	S	3.1	1.4			6	SW		0.126	3.2		
Pavia			29.98	761.5	46.4	8.0	80	SW			8		9			0	0		
Verona			29.94	760.5	56.3	13.5	73	E			4		10			0.138	3.5	Rain	
Padua			29.99	761.8	48.0	8.9	94	NE	16.1	7.2			10	NE		0.504	12.8	Rain	
Parma																			
Bologna			29.97	761.1	55.2	12.9	32	W			4		5	W		0	0		
Livorno			30.0	762.4	53.6	12.0	83	WNW	18.1	8.1			10			0.067	1.7		
Urbino			30.00	762.1	54.9	1[illegible].7	74	SW			4		10			0.327	8.3		
Ancona			30.08	764.1	56.1	13.4	91	Calm			0		10			0.004	0.1	Rain	
Siena			30.01	762.3	53.6	12.0	90	SW	0	0			10	S		0.032	0.8	Light rain	
Rome			30.05	763.3	61.7	16.5	80	SSE	7.4	3.3			10			0.028	0.7	Light rain	
Naples, O. U.			30.07	763.6	68.4	20.2	42	SSW			2		10	SW		0	0		
Lecce			30.17	766.2	64.4	18.0	53	SSW	17.4	7.8			3	S		0	0		
Cosenza			30.09	764.2	67.1	19.5	63	SE			1		6			0	0		
Catania, (Sicily)			30.17	766.1	61.7	16.5	76	SE			2		1	SE		0	0		
Riposto																			
Palermo			29.91	759.6	73.4	23.0	34	N			2		9			0	0		
SUB-SERIES.																			
Naples, S. R.	29.51	750.3			64.4	18.0	46	SW			2-4		k	WSW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.07	763.8	50.4	10.		ENE			4								
Groningen			30.11	764.8	48.2	9.0		E\E			4								
Helder			30.13	765.4	44.4	6.9		NE			4								
Utrecht			30.04	763.1	47.7	8.7		ENE			3		10						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.29	769.4	52.5	11.4	59	NNW	17.2	7.7			5			0	0		
Christiania			30.24	768.2	50.4	10.2	62	SSW	3.6	1.6			2			0	0		
Tromsö			29.55	750.5	26.6	3.0	89	SW			6		10			0.165	4.2	Snow	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.68	753.8			54.5	12.5	76	N	8.7	3.9			10						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.17	766.2	54.0	12.2	66	E	4	2			9						Astronomical Obs.
Wilna			30.18	766.5	52.5	11.4	55	Calm	0	0			3						Astronomical Obs.
Dorpat			30.10	764.5	43.9	6.6	68	W	4	2			8						Physical Cabinet.
St. Petersburg			29.91	759.7	39.9	4.4	65	WSW	11	5			10						Central Physical Obs.
Kieff			30.26	768.6	40.8	4.9	78	ESE	4	2			10						Physical Cabinet.
Nikolaiev			30.20	767.1	56.3	13.5	47	SE	4	2			5						
Kertch			30.15	765.9	54.3	12.4	62	ENE	13	6			3						Lagorio.
Moscow			30.15	765.8	44.6	7.0	48	W	4	2			0						Meteorological Obs.
Lugan			30.09	764.4	43.2	6.2	53	NW	10	4.5			6						Meteorological Obs.
Archangel			29.39	746.4	34.5	1.4	93	WSW	17	7.5			3						Ogorodnikof.
Tiflis			29.97	761.3	63.9	17.7	25	NW	13	6			5						Physical Obs.
Astrakhan			30.15	765.9	43.5	6.4	73	SW	4	2			10						Sebastianof.
Kasan			29.91	759.6	40.1	4.5	73	WSW	4	2			10						Physical Cabinet.
Orenburg			29.97	761.1	40.6	4.8	68	W	8	3.5			8						Tschernischef.
Ekaterinburg			29.89	759.2	41.4	5.2	63	W	4	2			8						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.73	755.2	42.3	5.7	82	S	13	6			4						Meteorological Obs.
Yeniseisk			29.41	747.1	42.8	6.0	63	N	8	3.5			3						Marks.
Irkutsk																			Usolzef.
Oorga			29.95	760.6	22.6	— 5.2	100	Calm	0	0			3						Mossin.
Peking, (China)			29.96	760.9	47.1	8.4	29	W	10	4.5			5						Physical Observatory.
Nertchinsk			29.92	759.9	14.0	—10.0	74	Calm	0	0			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.82	757.5	58.6	14.8	39	W	13.4	6.0		0	6			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.67	753.5	51.1	10.6	54	WNW			2		8			0	0		
Hernosand			29.87	758.6	57.0	12.2	50	WNW			3		0			0	0		
Stockholm			30.08	764.0	48.6	9.2	74	W			5		8			0	0		
Wisby			30.21	767.3	32.0	0.0	100	WNW			2		10			0	0		
Sub-Series.																			
Upsala			30.09	764.2	45.3	7.4	68	SW			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.43	722.2			52.2	11.2	49	SSW			2		10			0	0		The Observatory.
Zurich	28.13	714.6			57.4	14.1	45	SE			1		9			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —2.0mm.; Thermometer, +0°.0 C.; Relative Humidity, —9 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.06	763.5	64.9	18.3	78	N			1		5						
Constantinople			30.13	765.2	63.5	17.5	60	SSW	5.6	2.5			2		SW	0	0		
Fao, (Persian Gulf)			29.91	759.8	59.5	15.3		SE			4		10						
Salonica			30.08	764.1	57.4	14.1		SW			1		0						
Valona			30.11	764.9	70.3	21.3		S			2		2						
Varna			30.12	765.0	66.2	19.0		SE			1		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.00	762.0	45	7.2		SW	1	0.4			2s		W	0	0		
Chatham, N. B.			29.82	757.4	30	— 1.1	89	SW	2	0.9			Haze			0.10	2.5	Light snow.	
Charlottetown, P. E. Island			29.90	759.4	30	— 1.1	77	S	10	4.5			10s			0	0		
Fort Garry, Manitoba			29.74	755.4	29	— 1.7	89	NE	14	6.3		2k	5ks	NE	NE	0	0		
Halifax, N. S.			29.89	759.2	32	0.0	96	SW	7	3.1			10n			Blank	Blank	Light snow.	
Kingston, Ontario			30.0	762.0	40	4.4	82	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.84	757.9	39	3.9	86	W	22	9.8		0	0			0.04	1.0		
Ottawa, Ontario			29.92	760.0	37	2.8	74	W	7	3.1		2k	0	W		0.04	1.0		
Parry Sound, Ontario			29.94	760.5	35	1.7	85	W	1	0.4		2cs	0	W		0.15	3.8		
Port Dover, Ontario			30.04	763.0	38	3.3	72	S	12	5.4		5k	0	W		0	0		
Port Stanley, Ontario			30.04	763.0	34	1.1	88	SW	4	1.8		0	0			0	0		
Quebec, Quebec			29.76	756.9	31	— 0.6	100	Calm	0	0			10n			0.02	0.5	Fog.	
Saugeen, Ontario			29.94	760.5	42	5.6	78	SW	15	6.7		0	0			0	0		
Stayner			29.92	760.0	45	7.2	53	W	10	4.5		2c	0	W		0	0		
Sydney, C. B.			30.02	762.5	31	— 0.6	67	S	6	2.7		10cs	0			0	0		
Toronto, Ontario			30.02	762.5	41	5.0	71	W	4	1.8		5ck	0	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.98	761.5	43	6.1	91	SE	6	2.7		0	Fog			0	0		
Alpena, Mich.			29.88	758.9	39	3.9	63	SW	4	1.8		2c	0	SW		0	0		
Atlantic City, N. J.			30.06	763.5	47	8.3	85	NW	6	2.7		0	0			0	0		
Augusta, Ga.			30.03	762.7	67	19.4	84	Calm	0	0			10s			0	0		
Baltimore, Md.			30.10	764.5	50	10.0	86	W	2	0.9		2c	Haze			0.03	0.8		
Barnegat, N. J.			30.04	763.0	46	7.8	85	W	7	3.1		2k	0			0	0		
Benton, Montana			30.23	767.8	37	2.8	80	W	8	3.6		0	0			0	0		
Bismarck, Dakota			29.67	753.6	22	— 5.6	86	N	24	10.7			10n			0.30	7.6	Light snow.	
Boston, Mass.			29.92	760.0	42	5.6	79	NW	8	3.6		0	1ks			0	0		
Breckenridge, Minn.			29.69	754.1	25	— 3.9	89	NW	8	3.6			10s			0.07	1.8		
Buffalo, N. Y.			30.02	762.5	41	5.0	57	SW	4	1.8		10k	0	W		0.05	1.3		
Burlington, Vt.			29.92	760.0	41	5.0	74	S	6	2.7		2k	2s			0.08	2.0		
Cairo, Ill.			29.94	760.5	56	13.3	62	E	8	3.6		2ck	0	W		0	0		
Cape Hatteras, N. C.			30.04	763.0	63	17.2	88	N	6	2.7			10n		NE	0.03	0.8	Light rain.	
Cape Henry, Va.			30.11	764.8	51	10.6	93	N	14	6.3			10s			0	0		
Cape May, N. J.			30.07	763.8	48	8.9	85	N	5	2.2		0	0			0.06	1.5		
Charleston, S. C.			30.10	764.5	68	20.0	90	SW	4	1.8		5c	Fog	S		0	0		
Cheyenne, W. T.			29.96	761.0	25	— 3.9	60	W	24	10.7		5c	2s	NW		0	0		
Chicago, Ill.			29.99	761.7	44	6.7	60	SW	4	1.8		8ck	0	W		0.01	0.3		
Cincinnati, Ohio			30.05	763.3	47	8.3	69	SE	2	0.9		5c	0	S		0	0		
Cleveland, Ohio			30.03	762.7	47.1	8.4	55	SE	4	1.8		0	Sm'e			0	0		
Colorado Springs, Col.			29.99	761.7	25	— 3.9	87	N	4	1.8		0	5s			0	0		
Corsicana, Texas			29.81	757.2	63	17.2	88	S	6	2.7		5k	0	SW		0	0		
Davenport, Iowa			29.99	761.7	41	5.0	65	W	4	1.8		8c	0	W		0	0		
Denver, Col.			30.07	763.8	29	— 1.7	56	SW	8	3.6		0	0			0	0		
Detroit, Mich.			29.98	761.5	43	6.1	58	SW	8	3.6		0	Haze			0	0		
Dodge City, Kansas			29.79	756.7	39	3.9	82	N	4	1.8		1k	0			0	0		
Dubuque, Iowa			29.95	760.7	43	6.1	59	W	8	3.6		1k	0	SW		0	0		
Duluth, Minn.			29.73	755.1	32	0.0	69	Calm	0	0			10s			0.05	1.3		
Eastport, Me.			29.82	757.4	35	1.7	70	SW	16	7.2			10s			0	0		
Erie, Penn.			30.01	762.2	48	8.9	56	S	12	5.4		0	2ks			0	0		
Escanaba, Mich.			29.82	757.4	34	1.1	71	S	4	1.8		2ck	Haze			0	0		
Fort Gibson, I. T.			29.82	757.4	51	10.6	59	NE	17	7.6			10cs			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.84	757.9	27	— 2.8	88	NW	22	9.8			10n			0	0		
Galveston, Texas			29.89	759.2	70	21.1	95	S	11	4.9			10s			0.04	2.0	Threatening	
Grand Haven, Mich.			29.96	761.0	43	6.1	50	W	16	7.2		0	0			0	0		
Indianapolis, Ind.			30.00	762.0	46	7.8	66	S	3	1.3		2c	Haze	W		0	0		
Indianola, Texas			29.90	759.4	71	21.7	95	S	12	5.4			10s			0	0		
Jacksonville, Fla.			30.12	765.0	70	21.1	79	S	8	3.6		8c	0	SW		0	0		
Keokuk, Iowa			29.97	761.2	48	8.9	56	S	2	0.9		2c	1s	S		0	0		
Key West, Fla.			30.12	765.0	75.4	24.1	69	SE	14	6.3		2k	Sm'e	SE		0	0		
Kittyhawk, N. C.			30.07	763.8	49	9.4	85	N	20	8.9			10s		NE	0.66	16.8		
Knoxville, Tenn.			30.03	762.7	51	10.6	100	E	8	3.6			Fog			0.03	0.8		
La Crosse, Wis.			29.83	757.7	38	3.3	63	S	9	4.0		0	0			0	0		
Leavenworth, Kan.			30.00	762.0	40	4.4	72	Calm	0	0			10s			0	0		
Lexington, Ky.			30.01	762.2	50	10.0	65	E	9	4.0		10c	0			0	0		
Long Branch, N. J.			30.06	763.5	44	6.7	92	NW	4	3.6			10s		NE	0.03	0.8		
Louisville, Ky.			30.03	762.7	47	8.3	62	Calm	0	0		5c	0			0	0		
Lynchburg, Va.			30.10	764.5	50	10.0	89	E	4	3.6			10s			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.81	757.2	28	— 2.2	72	Calm	0	0			10s			0	0		
Memphis, Tenn.			29.92	760.0	53	11.7	73	NE	1	0.4		2cs	5s			0	0		
Milwaukee, Wisconsin			29.95	760.7	40	4.4	64	S	5	2.2		0	0			0	0		
Mobile, Ala.			30.01	762.2	70	21.1	90	S	2	0.9		2k	5s			0	0		
Montgomery, Ala.			30.01	762.2	67	19.4	89	S	5	2.2		8cs	Haze	W		0.01	0.3		
Morgantown, W. Virginia			30.11	764.8	49	9.4	62	Calm	0	0		0	0			0	0		
Mt. Washington, N. H.			29.73	755.1	36	2.2	100	NW	50	22.4			Fog			0	0		
Nashville, Tenn.			29.99	761.7	52	11.1	79	NE	3	1.3		5cs	5s	SW		0	0		
New Haven, Conn.			30.00	762.0	47	8.3	70	S	1	0.4		2k	Sm'e	S		0	0		
New London, Conn.			30.01	762.2	40	4.4	91	W	7	3.1			10s		W	0.01	0.3	Clearing.	
New Orleans, La.			29.97	761.2	69.5	20.8	92	SE	6	2.7		0	8ks		SE	0	0		
Newport, R. I.																			
New York, N. Y.			30.04	763.0	40	4.4	91	W	5	2.2		0	Fog			0.10	2.5		
Norfolk, Va.			30.10	764.5	53	11.7	86	NE	9	4.0			10s		NW	0	0		
North Platte, Neb.			29.69	754.1	31	— 0.6	78	W	14	6.3		0	2s		W	0	0		
Omaha, Neb.			29.94	760.5	36	2.2	70	SE	6	2.7		0	0			0	0		
Oswego, N. Y.			30.01	762.2	43	6.1	58	W	10	4.5		Haze	Haze			0.13	3.3		
Peck's Beach			30.07	763.8	49	9.4	85	NW	8	3.6		0	1s			0	0		
Pembina, D. T.			29.62	752.3	26	— 3.3	100	NE	4	1.8			10n			0.05	1.3	Heavy snow	
Philadelphia, Penn.			30.09	764.3	44	6.7	92	NW	8	3.6		2k	Sm'e	NW		0	0		
Pike's Peak, C. T.			29.70	754.4	— 7	—21.7	100	NW	24	10.7		2k	0	W		0.09	2.3		
Pittsburgh, Penn.			30.10	764.5	42	5.6	41	Calm	0	0		8c	Sm'e	W		0	0		
Port Huron, Mich.			30.00	762.0	42	5.6	74	SW	9	4.0		0	0			0	0		
Portland, Maine			29.87	758.7	39	3.9	82	W	9	4.0		8ck	0	NW		0.03	0.8	Clearing	
Portland, Or.			30.45	773.4	39	3.9	91	Calm	0	0			Fog			0	0	Fog.	
Punta Rassa, Fla.			30.15	765.8	71.3	21.8	57	SE	18	8.0		10c	Sm'e	W		0	0		
Rochester, N. Y.			30.00	762.0	45	7.2	53	SW	18	8.0		Haze	0			0.09	2.3		
Salt Lake City, Utah			30.26	768.6	30	— 1.1	68	E	1	0.4			10s			0	0		
Sandy Hook, N. J.			30.04	763.0	42	5.6	83	W	10	4.5			10s		W	0.03	0.8		
San Diego, Cal.			30.11	764.8	49	9.4	59	N	4	1.8		0	0			0	0		
San Francisco, Cal.			30.16	766.1	50	10.0	86	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.72	754.9	23	— 5.0	53	NW	4	1.8		0	0			0.05	1.3		
Savannah, Georgia			30.09	764.3	68	20.0	79	S	6	2.7		5ck	Sm'e	SW		0	0		
Shreveport, La.			29.87	758.7	61	16.1	97	E	3	1.3			10n			0.07	1.8	Threatening	
Springfield, Mass.			29.97	761.2	44	6.7	75	S	4	1.8		0	Sm'e			0.01	0.3		
St. Louis, Mo.			29.98	761.5	48	8.9	62	NE	8	3.6			10s			0	0		
St. Marks, Fla.			30.11	764.8	68	20.0	94	S	8	3.6			10ks			0	0		
St. Paul, Minn.			29.68	753.9	33	0.6	79	S	8	3.6		2c	2s	W		0.04	1.0		
St. Paul's Island, Alaska			30.15	765.8	20	— 6.7	70	NNE	11	4.9			8k			0	0		
Squan Branch, N. J.			30.06	763.5	43	6.1	90	NW	3	3.1			5ks		NW	0	0		
Toledo, Ohio			30.01	762.2	51	10.6	46	S	9	4.0		5c	0	W		0	0		
Tybee Island, Ga.			30.07	763.8	70	21.1	87	S	5	2.2		5c	Sm'e	SW		0	0		
Vicksburg, Miss.			29.93	760.2	65	18.3	94	SW	9	4.0			10n			1.81	46.0	Light rain.	
Virginia City, Mon.			29.95	760.7	20	— 6.7	70	SE	4	1.8		0	0			0	0		
Washington, D. C.			30.12	765.0	49.5	9.7	86	Calm	0	0		5c	2s	W		0	0		
Wilmington, N. C.			30.07	763.8	63	17.2	88	SW	4	1.8			10n			0.03	0.8	Light rain.	
Wood's Hole, Mass.			29.96	761.0	40	4.4	82	SW	8	3.6			10s			0	0		
Wytheville, Va.			29.91	759.7	42	5.6	100	W	1	.4			Fog			0	0	Fog.	
Yankton, D. T.			29.83	757.7	37	2.8	62	W	13	5.8		0	1s			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		E	5	2.5		2c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	74	23.3		NE				10k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.88	758.9	75	23.9	72	SE	10.8	4.8		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	74	23.3		Calm	0	0			10n			0	0		James Gall.
St. Thomas, St. T., W. I.	30.28	769.1			75	23.9		E	9	4.0		1cs	1k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	73	22.8	52	NE	10.8	4.8		0	2s			0	0		Robert Mason.
St. Georges, Bermudas			30.08	764.0	65.5	18.6	86	SSW	3.6	1.6		8k	5k	WSW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.12	765.0	63	17.2	73	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.97	761.2	57	13.9	87	Calm	0	0		0	0			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.91	759.7	19.0	— 7.2	92	NE	5	2.2		1c	0	N		0.01	0.3		J. Fortescue.
Clifton, Jamaica, W. I.			30.09	764.3	65.0	18.3	93	SE	20	8.9			10k			0.30	7.6		C. Partridge.
St. John's, Newfoundland			30.18	766.6	29	— 1.7	62	SE				0	0			0.10	2.5		John Delaney.
St. John's, Porto Rico, W. I.			30.11	764.9	78.6	25.9	52	NE			4	3k	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			30.05	763.3	45	7.2	76	SW	8	3.6		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.10	739.1			39	3.9		SW				4c	0	SW		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 11, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.04	763.0	65.7	18.7		NNE			5		6			0	0		Charnot.
Algiers			29.94	760.4	61.2	16.2	69	NW			1		4			0	0		Peter.
La Calle																			Kuntz.
Tunis			29.97	761.3	68.0	20.0	64	ESE			4		10			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.95	760.7	58.8	14.9		WNW			2		2			0.079	2.0		Grosjean.
Tebessa			29.85	758.1	59.4	15.2		NW			5		9			0	0		Colin.
Geriville			29.92	759.9	53.4	11.9		NNW			2		2			0	0		Bernadach.
Laghouat			29.87	758.6	57.2	14.0	47	NNW			4		2			0.158	4.0	Rain	Poinsignon.
Biskra			29.92	760.0	58.5	14.7		NW			5		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.04	762.9	67.6	19.8	41	NE			3		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.12	765.0	54.5	12.5	58	NE			1		6			0.028	0.7		I. R. Observatory.
Eperies			30.02	762.6	59.6	15.0	48	NW			2		3k			0.130	3.31		Julius Mikolik.
Gratz			30.06	763 4	64.0	17.8	48	SSW			2		2			0	0		Andreas Rospini.
Hermannstadt			30.00	762.0	59.7	15.4	40	NW			2		5			0	0		Prof. Reissenberger.
Kremsmünster			30.10	764.6	56.7	13.7	60	NW			1					0	0		Prof. C. Wagner.
Lemberg			29.98	761.6	51.4	10.8	73	NW			4		4			0.232	5.9		Dr. T. Stanecki.
Nytregyhaza			30.06	763.5	61.9	16.6	56	NE			1		1			0	0		Habzsuda Daniel.
Pola			30.11	764.7	51.8	11.0	90	WNW			2		6ks			0.016	0.41		I. R. Hydrographic Office
Szegedin			30.03	762.7	62.6	17.0	60	S			1		9			0	0		Karl Stancel.
Trieste			30.14	765.6	53.8	12.1	91	NW			1		8			0	0	Fog	Prof. V. Farolfi.
Vienna			30.08	764.0	60.1	15.6	52	NNE			2		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.92	759.9			57.4	14.1	64	E			1		5		SE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.41	772.4	45.6	7.6		N	16	7.2			8			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.33	770.4	53.0	11.7		NNE	11	4.9			0						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.25	768.3	46.9	8.3		NE			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.26	768.6	56.1	13.4		ENE			1		2						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.18	766.6	47.2	8.4		NE			2		10						H. Todd.
Cape Town, (Cape Colony)			29.98	761.5	68.2	20.1		SE			3		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.01	762.2			66.4	19.1	71	S	13	5.8			6						The Staff, for E. J. Stone
Cardington			30.19	766.8	47.0	8.3		NE					10						John McLaren.
Carlisle			30.32	770.1	47.3	8.5		NE					6			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.12	765.0	46.4	8.0		NE			3		10					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	81.0	27.2		SE			2		5						Sgt. W. F. Hopkins
Dartmoor			30.20	767.1	39.2	4.0		NE			2		10						R. E. Power.
Donaghadee			30.31	769.9	52	11.1		NE			3		0						J. Mac Gowan, Jr.
Dover			30.10	764.5	48	8.9		ENE			4		7						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.26	768.6	47.0	8.3		E	7.8	3.5			10						Thomas Mackereth.
Falmouth Observatory			30.13	765.3	47.1	8.4		N	8	3.8			10						The Staff.
Fort Napier, (Natal)			29.76	755.9	81.5	27.5		NE			3		3						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			30.25	768.3	54	12.2		NE			3		1						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.02	762.5	62	16.7		W			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.34	770.6	52.9	11.6		ENE			2		5						James Gray.
Great Yarmouth			30.18	766.6	45	7.2		NNE			4		3					Haze	G. T. Watson.
Greenwich Royal Obs.			30.13	765.3	51.3	10.7		ENE			4		10			Blank	Blank		The Staff, for G. B. Airy.
Guernsey			30.06	763.5	46.0	7.8		NE			2		10					Rain	Dr. S. E. Hoskins.
Halifax, Moorside Obs.								NE					10						F. J. Page, for L. J. Cross- [ley.
Halifax, (Nova Scotia)			29.77	756.1	33.9	1.1		N			3		8						Corp'l J. V. Thompson.
Helston			30.08	764.0	51	10.6		ENE			4		10						Dr. W. B. Moyle.
Holyhead			30.25	768.3	48	8.9		NNE			3		3						John Tilston.
Hull Park																			
Kew Observatory			30.14	765.5	49.2	9.6		NE	17	7.6			10						The Staff.
Kingstown			30.31	769.9	46	7.8		NE			3		7						George Mitchell.
Lampeter																			
Leicester Museum			30.24	768.1	44.6	7.0		NE			3		10						William J. Harrison
Llandudno			30.24	768.1	46.5	8.2		NE			1		10						Dr. James Nicol.
Malta, (Mediterranean)			29.90	759.4	64.0	17.8		SE			3		10k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.42	772.7	46	7.8		E			1		8						William D. Penny.
Nassau, (Bahamas)			30.10	764.5	74.9	23.8		SE			3		3						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			29.25	742.9	46.2	7.9		NE			4		10ks		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.21	767.3	43.3	6.3		NNE			5		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.15	765.8	43	6.1		NE			2		10					Mist	J. Lucas, for R. Main.
Plymouth			30.11	764.8	49	9.4		NE			3		10					Mist	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.21	767.3	52	11.1		E			4		8						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.03	762.7	47.5	8.6		E			1		10					Rain	A. P. Amy.
Sandwick Manse (Orkneys)			30.47	773.7	45.0	7.2		NE	10	4.5			3						Rev. C. Clouston
Scarborough																			F. Shaw.
Scutari, (Turkey)			30.01	762.2	62.0	16.7		S			1		2						Sergt. W. H. Lyne.
Sheffield			30.24	768.1	45.9	7.7		ENE			3		10			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.28	769.1	51.5	10.8		NE			5		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.24	768.1	47.0	8.3		ENE			2		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.24	768.1	48.2	9.0		E			3		6						The Staff.
Stornoway, Lews C. (Hebr)			30.41	772.4	50	10.0		NE			3		1						John Smith.
Strathfield Turgiss			30.16	766.1	45.6	7.6		NE			1		10					Mist	Rev Charles H. Griffith
Streatley Vicarage			30.17	766.3	44.0	6.7		NE			5		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.42	772.7	49	9.4		NE			4		5						William Lawrence.
Taunton College																			
Thurso			30.45	773.4	45	7.2		Calm			0		8						John Trotter.
Truro. Royal Institution			30.07	763.8	49	9.4		NE			4		10						W. Newcombe.
Valencia Observatory			30.03	762.7	54.7	12.6		NNE	17	7.6			5						The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.21	767.3	48.9	9.4	54	SE			2		6						
Fanöe			30.23	767.9	51.1	10.6	72	W			4		2						
Godthaab, (Greenland)			30.20	767.2	33.3	0.7		SE			2		8						
Stykkisholm, (Iceland)			30.54	775.6	38.5	3.6	92	Calm			0		10						
Thorshavn, (Faröe)			30.51	774.9	45.1	7.3	89	Calm			0		10						
Vestervig			30.16	766.1	50.0	10.0	87	SSW			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.92	759.9	55.8	13.2	88						1cs						Normal School.
Alençon																			Normal School.
Amiens			30.06	763.4	64.0	17.8	74	ENE			2		2			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.08	763.9	58.5	14.7	53	S			3		8		SE	0.008	0.20		Normal School.
Besançon			30.09	764.4	60.9	15.9	51	E			2		2		SW	0.028	0.7		Normal School.
Bourges			29.98	761.4	57.6	14.2	62	SE			1		2		SE	0.020	0.5		Normal School.
Brest			30.01	762.2	48.7	9.3	78	NNE			3		10		NE	0	0		Naval Observatory.
Caen			29.99	761.7	49.5	9.7	76	NE			2		10		NE	0.079	2.0		Normal School.
Carcassonne																			
Chartres			30.04	762.9	56.8	13.8		S			1		8		SW	0	0		Normal School.
Chaumont			30.07	763.8	58.5	14.7		S-E			4		0			0	0		Normal School.
Le Mans			30.09	764.4	53.8	12.1	78	SE			2		8		SE	0	0		Normal School.
Mirecourt			30.06	763.4	55.4	13.0	42	SE			2		1		NW	0	0		Normal School.
Orleans																			Normal School.
Paris			30.06	763.5	57.7	14.3		S			3		5		S	0	0		National Observatory.
Parthenay			29.96	761.0	53.6	12.0	58	NE			2		5		SE	0	0		Normal School.
La Roche sur Yon			30.02	762.5	57.9	14.4	69	NE			2		5		SW	0.264	6.7		Normal School.
Rouen			30.03	762.8	55.6	13.1	61	SSE			2		10		E	0.028	0.7		Normal School.
Saint Lo			30.01	763.1	51.8	11.0	86	NE			2		10		NE	0.020	0.5		Normal School.
Villefranche			30.04	763.1	64.6	18.1	84	S			6		2		ESE	0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Père Pascall.
Mont-Louis	24.72	627.9			42.6	5.9	64	SSW	7.4	3.3			8		SSE	0.020	0.5		—. Falguère.
Montsouris (near Paris)			30.05	763.3	57.6	14.2	50	E	2.0	0.9			8k		S	0	0		Marié Davy.
Perpignan	29.86	758.4			59.2	15.1	72	ESE	13.0	5.8			5		SW	0	0		Dr. Fines.
Saint Maur, (near Paris)			30.06	763.4	61.2	16.2	44	S			1		4			0.012	0.3		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.02	762.4	57.7	14.3	57	SSE			1		5		S	0.035	0.9		C. Marquet.
Versailles, (near Paris)			30.05	763.2	58.6	14.8	52	S			3		8			0.023	0.59		Dr. A. Bérigny.
Z.-Ka-Wei, (near Shanghai)			30.16	766.1	47.3	8.5	81	SE	6.9	3.1			0			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.06	763.4	56.1	13.4	55	NE			2		2			0	0		Prof. Hoh.
Berlin			30.23	767.7	57.6	14.2	76	N			2		4			0	0		Prof. Arndt.
Breslau			30.22	767.6	52.9	11.6	61	NW			2		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.09	764.2	61.9	16.6	37	E			2		0			0.016	0.4		A. Senz.
Cassel			30.14	765.6	61.9	16.6	57	NE			2		1			0	0		Dr. H. Möhl.
Cologne			30.15	765.8	64.6	18.1	59	S			3		3			0	0		Dr. Garthe.
Emden			30.20	767.1	59.2	15.1	59	Calm			0		0			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.4	62.6	17.0	42	N			1		1			0	0		Physical Society.
Friedrichshafen			30.11	764.7	54.5	12.5	54	W					0			0	0		M. Wilhelm.
Hamburg			30.24	768.1	54.5	12.5	72	SE			2		3			0	0		W. Reinert.
Kiel			30.31	769.8	50.9	10.5	42	NNE			3		0			0	0		Prof. G. Karsten.
Königsberg			30.13	765.2	39.6	4.2	52	N			1		1			0	0		Prof. E. Luther.
Köslin			30.30	769.6	47.7	8.7		N			2		2			0	0		Dr. T gert.
Leipsic			30.21	767.4	55.4	13.0	66	NNE			2		8			0	0		Prof. Bruhns.
Münster			30.08	764.0	62.6	17.0	85	SE			2		0			0	0		Prof. E. Heis.
Posen			30.16	766.0	66.3	13.5	59	SW			1		1			0.016	0.4		Dr. Mager.
Strassburg, (in Alsace)			30.12	765.0	58.8	14.9	36	N					0			0	0		Hartwig and Tülk.
Stuttgart			30.10	764.6	60.4	15.8	45	NE					0			0	0		Mr. Würth.
Thorn			30.09	764.4	55.8	13.2	70	N			4		6			0.012	0.3		Dr. [illegible]enbalg.
Treves, (Trier)			30.09	764.3	59.0	15.0	45	E			2		1			0	0		Prof. [illegible]lesch.
Wustrow			30.23	767.9	47.3	8.5	73	WNW			2		7			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.09	764.3	55.9	13.3	53	SSE	1.3	0.6			7			0	0		
Mondovi			30.14	765.5	51.3	10.7	49	NW			4		7	S		0	0		
Genoa			30.05	763.3	58.8	14.9	49	N	7.4	3.3			10	S		0	0		
Pavia			30.12	765.0	57.6	14.2	48	NE			2		8			0	0		
Verona			30.16	766.1	61.3	16.3	64	E			1		0			0	0		
Padua			30.10	764.6	57.4	14.1	65	ESE	1.8	0.8			4	ESE		0	0		
Parma																			
Bologna			30.11	764.7	58.6	14.8	37	W			4		5	E		0	0		
Livorno			30.02	762.6	64.8	18.2	52	ENE	10.5	4.7			9			0	0		
Urbino			30.12	765.1	49.5	9.7	97	NE			2		10			0.079	2.0		
Ancona			30.13	765.4	52.2	11.2	80	NW			2		10			0.098	2.5		
Siena			30.02	762.4	58.8	14.9	64	ENE	3.8	1.7			10	E		0.024	0.6	Rain	
Rome			29.98	761.6	64.4	18.0	68	NNE	2.5	1.1			10	SW		0	0		
Naples, O. U.			30.02	762.5	68.0	20.0	62	WSW			2		10	SW		0	0		
Lecce			30.12	765.0	63.7	17.6	72	ENE	6.9	3.1			6			0	0		
Cosenza			30.11	764.8	64.9	18.3	66	N			2		10			0	0		
Catania, (Sicily)			30.06	763.5	60.4	15.8	79	ESE			4		8	SE		0	0		
Liposto																			
Palermo			29.80	756.8	70.2	21.2	40	E			4		9			0	0		
Sub-Series.																			
Naples, S. R.	29.50	749.2			64.8	18.2	71	SW			2-4		k	SW		0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.15	765.7	54.7	12.6		SE			3								
Groningen			30.14	765.6	56.3	13.5		ESE			2								
Helder			30.17	766.3	48.9	9.4		NE			2								
Utrecht			30.10	764.6	60.8	16.0		SE			3		5						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.21	767.3	54.1	12.3	49	NNW	17.9	8.0			0			0	0		
Christiania			30.18	766.5	47.8	8.8	50	SW	7.8	3.5			0			0	0		
Tromsö			29.78	756.5	32.0	0.0	96	W			2		10			0.244	6.2		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.74	755.3			56.8	13.8	38	WNW	19.9	8.9			3						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			30.02	762.6	56.8	13.8	53	W	13	6			10						Astronomical Obs.
Wilna			29.94	760.5	43.7	6.5	46	NW	10	4.5			2						Astronomical Obs.
Dorpat			29.82	757.5	37.6	3.1	59	WNW	13	6			1						Physical Cabinet.
St. Petersburg			29.55	750.5	37.6	3.1	64	NW	18	8			10						Central Physical Obs.
Kieff			29.89	759.3	46.4	8.0	71	NW	9	4			10						Physical Cabinet.
Nikolaiev			29.99	761.8	59.2	15.1	48	WSW	10	4.5			7						
Kertch			29.95	760.8	49.5	9.7	69	ESE	8	3.5			6						Lagorio.
Moscow			29.49	749.1	35.1	1.7	55	NW	13	6			6						Meteorological Obs.
Lugan			29.75	755.6	45.9	7.7	52	SW	20	9			5						Meteorological Obs.
Archangel			29.08	738.5	30.2	− 1.0	84	NW	17	7.5			3						Ogorodnikof.
Tiflis			29.90	759.6	61.9	16.6	36	SE	4	2			9						Physical Obs.
Astrakhan			29.97	761.1	53.4	11.9	34	WSW	10	4.5			3						Sebastianof.
Kasan			29.28	743.8	40.3	4.6	62	SW	13	6			8						Physical Cabinet.
Orenburg			29.69	754.1	37.0	2.8	89	SW	8	3.5			10					Rain	Tschernischef.
Ekaterinburg			29.58	751.2	38.5	3.6	77	S	13	6			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.88	759.0	4.9	5.5	81	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.61	752.1	36.0	2.2	61	N	8	3.5			0						arks.
Irkutsk																			Usolzef.
Oorga			29.78	756.5	36.0	2.2	75	Calm	0	0			5						Mossin.
Peking, (China)			29.84	758.	52.9	11.6	41	S	8	3.5			1						Physical Observatory.
Nertchinsk			29.95	760.6	19.0	− 7.2	69	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdokof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.90	759.4	53.4	11.9	50	SW	9.6	4.3		1	5	SE		0.004	0.1		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.86	758.4	40.6	4.8	48	NW			5		10			0	0		
Hernosand			29.93	760.2	41.0	5.0	36	NW			7		6			0.20	5.1		
Stockholm			30.04	763.1	40.3	4.6	50	W			5		4			0	0		
Wisby			30.14	765.6	36.7	2.6	72	NW			2		0			0	0		
Sub-Series.																			
Upsala			30.03	762.8	43.9	6.6	48	W			4		1						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.65	727.6			52.7	11.3	57	NNE			2		3			0	0	Mist	The Observatory.
Zurich	28.43	722.0			59.2	15.1	40	NE			1		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.4mm.; Thermometer, +0°.0 C.; Relative Humidity, −1 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.06	763.5	64.0	17.6	72	SW	9	4			5		W	0	0		
Fao, (Persian Gulf)			29.98	761.5	68.0	20.0		SE			3		0						
Salonica			29.98	761.6	65.1	18.4		SE			1		0						
Valona			30.07	763.8	72.9	22.7		SW			1		2						
Varna			30.08	764.0	53.6	12.0		E			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.05	763.3	45	7.2		SW	2	0.9		0	0			0	0		
Chatham, N. B.			29.84	757.9	32	0.0	79	N	10	4.5		8k	2ks	N	N	0.17	4.3		
Charlottetown, P. E. Island			29.73	755.1	31	— 0.6	87	W	8	3.6			10s			0.23	5.8		
Fort Garry, Manitoba			30.32	770.1	25	— 3.9	98	N	4	1.8		0	0			0	0		
Halifax, N. S.			29.73	755.1	34	1.1	81	N	8	3.6		0	2ks		NW	0.10	2.5		
Kingston, Ontario			30.04	763.0	41	5.0	75	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.96	761.0	40	4.4	54	N	11	4.9		0	0			0	0		
Ottawa, Ontario			30.00	762.0	38	3.3	65	N	1	0.4		2c	0	NW		0	0		
Parry Sound, Ontario			30.03	762.7	35	1.7	65	NE	1	0.4		0	0			0	0		
Port Dover, Ontario			29.99	761.7	39	3.9	64	NE	6	2.7		2k	0	NW		0	0		
Port Stanley, Ontario			29.96	761.0	41	5.0	60	E	10	4.5		5k	0	SW		0	0		
Quebec, Quebec			29.95	760.7	32	0.0	79	Calm	0	0		5k	2ks			0.02	0.5		
Saugeen, Ontario			30.00	762.0	28	— 2.2	72	NE	4	1.8		2ks	0			0	0		
Stayner, Ontario																			
Sydney, C. B.			29.82	757.4	30	— 1.1	92	SE	8	3.6			10n			0.21	5.3	Heavy snow.	
Toronto, Ontario			30.02	762.5	42	5.6	50	NE	4	1.8		2cs	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.94	760.5	47	8.3	69	N	1	0		0	0			0	0		
Alpena, Mich.			30.02	762.5	38	3.3	46	NE	10	4.5		0	5ks			0	0		
Atlantic City, N. J.			29.98	761.5	46	7.8	92	Calm	0	0		10cs	0	SW		0	0		
Augusta, Ga.			29.88	758.9	64	17.8	89	N	2	0.9			10s			0.69	17.5		
Baltimore, Md.			29.97	761.2	52	11.1	79	Calm	0	0			10s			0	0		
Barnegat, N. J.			29.96	761.0	53	11.7	68	SE	1	0.4			10s			0	0		
Benton, Montana			30.31	769.9	31	— 0.6	79	N	2	0.9			10s			0	0		
Bismarck, Dakota			30.08	764.0	24	— 4.4	74	N	12	5.4			8k			0.07	1.8		
Boston, Mass.			29.99	759.4	48	8.9	53	NW	6	2.7		0	0			0	0		
Breckenridge, Minn.			30.08	764.0	32	0.0	89	N	4	1.8			10s			0.03	0.8		
Buffalo, N. Y.			29.98	761.5	42	5.6	50	E	4	1.8		2cs	Sm'e			0	0		
Burlington, Vt.			29.70	754.4	40	4.4	73	N	3	1.3			10s			0	0		
Cairo, Ill.			29.90	759.4	44	6.7	76	W	8	3.6			10ks			0	0		
Cape Hatteras, N. C.			29.89	759.2	59	15.0	94	Calm	0	0			10ks		W	0.32	8.1		
Cape Henry, Va.			29.95	760.7	49	9.4	85	SE	14	6.3			10n			0.08	2.0	Light rain	
Cape May, N. J.			29.98	761.5	49	9.4	77	S	4	1.8			10s		W	0	0		
Charleston, S. C.			29.94	760.5	68	20.0	87	SW	8	3.6		8ck	Haze			0	0		
Cheyenne, W. T.			29.92	760.0	14	—10.0	100	N	36	16.1			10n			0.02	0.5	Heavy snow	
Chicago, Ill.			29.74	755.4	40	4.4	91	NE	20	8.9			10n			0.01	0.3	Light rain	
Cincinnati, Ohio			29.70	754.4	55	12.8	74	Calm	0	0			10ks			0.59	15.0		
Cleveland, Ohio			29.83	757.7	52	11.1	41	SE	6	2.7			10ks		SE	0	0		
Colorado Springs, Col.			29.94	760.5	25	— 3.9	87	SE	2	0.9			10n			0.01	0.3	Light snow	
Corsicana, Texas			29.52	749.8	43	6.1	83	W	2	0.9		0	0			0	0		
Davenport, Iowa			29.87	758.7	35	1.7	100	N	8	3.6			10n			0.60	15.2	Light rain	
Denver, Col.			30.03	762.7	25	— 3.9	62	E	8	3.6			10n			0.08	2.0	Light snow	
Detroit, Mich.			29.85	758.2	44	6.7	59	NE	15	6.7			10s			0	0		
Dodge City, Kansas			29.76	755.9	29	— 1.7	77	NW	24	10.7		5k	0	N		0	0		
Dubuque, Iowa			29.93	760.2	33	0.6	89	NE	6	2.7			10n			0.14	3.5	Heavy snow	
Duluth, Minn.			30.14	765.5	37	2.8	62	NE	12	5.4		4cs	0	NE		0.01	0.3		
Eastport, Me.			29.86	758.4	35	1.7	81	NE	8	3.6		10k	0	N		0	0		
Erie, Penn.			29.91	759.7	46	7.8	54	E	8	3.6		2c	Haze	E		0	0		
Escanaba, Mich.			30.05	763.3	30	— 1.1	78	N	14	6.3		5ck	Haze	N		0	0		
Fort Gibson, I. T.			29.97	761.2	42	5.6	75	NW	15	6.7		5cs	0	W		0.23	5.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.16	766.1	35	1.7	81	N	22	9.8			5s			0.05	1.3		
Galveston, Texas			29.95	760.7	54	12.2	73	NE	25	11.2		0	0			0.05	1.3		
Grand Haven, Mich.			29.85	758.2	44	6.7	45	E	10	4.5		8k	0	E		0	0		
Indianapolis, Ind.			29.66	753.4	49	9.4	93	E	4	1.8			10n			0.29	7.4	Light rain	
Indianola, Texas			29.96	761.0	56	13.3	62	NE	30	13.4		1c	5s	W		0.16	4.1		
Jacksonville, Fla.			29.98	761.5	70	21.1	84	S	16	7.2		9k	0	SW		0	0		
Keokuk, Iowa			29.79	756.7	43	6.1	75	Calm	0	0		0	2ks			0	0		
Key West, Fla.			30.03	762.7	75.5	24.1	64	SE	13	5.8		8cs	Haze			0	0		
Kittyhawk, N. C.			29.91	759.7	50	10.0	96	NE	6	2.7			10s		S	0.71	18.0		
Knoxville, Tenn.			29.78	756.4	54	12.2	93	NE	2	0.9			10s			0.46	11.7		
La Crosse, Wis.			29.94	760.5	40	4.4	73	Calm	0	0			10n			0.03	0.8	Light rain	
Leavenworth, Kan.			29.88	758.9	35	1.7	89	NW	10	4.5			10s			0.01	0.3		
Lexington, Ky.			29.72	754.9	60	15.6	55	W	7	3.1		8k	0	W		0.02	0.5		
Long Branch, N. J.			29.97	761.2	55	12.8	68	SW	2	0.9		2c	0	SW		0	0		
Louisville, Ky.			29.71	754.6	53	11.7	80	SW	12	5.4			10s		SW	0.26	6.6		
Lynchburg, Va.			29.93	760.2	52	11.1	93	NE	3	1.3			10n			0.35	8.9	Light rain	
Malone, N. Y.																			
Marquette, Mich.			30.10	764.5	33	0.6	70	NW	12	5.4		0	0			0	0		
Memphis, Tenn.			29.93	760.2	46	7.8	85	W	3	1.3		3k	0	NW		0.12	3.0		
Milwaukee, Wisconsin			29.87	758.7	35	1.7	90	NE	23	10.3			10s			0	0	Threatening	
Mobile, Ala.			29.82	757.4	68	20.0	94	SW	5	2.2			10n			0.16	4.1	Heavy rain	
Montgomery, Ala.			29.80	756.9	68	20.0	90	S	2	0.9			10n			0.05	1.3	Heavy rain	
Morgantown, W. Virginia			29.79	756.7	57	13.9	62	NE	2	0.9			10s			0	0		
Mt. Washington, N. H.			29.79	756.7	16	— 8.9	100	NW	40	17.9			Fog			0	0	Fog	
Nashville, Tenn.			29.84	757.9	51	10.6	78	W	11	4.9		10k	0	NW		0.32	8.1		
New Haven, Conn.			29.95	760.7	52	11.1	53	N	1	0.4		3cs	0	NW		0	0		
New London, Conn.			29.95	760.7	50	10.0	65	NW	1	0.4		2c	Haze	W		0	0		
New Orleans, La.			29.83	757.7	66.5	19.2	81	NW	14	6.3			10ks		NW	0.15	3.8		
Newport, R. I.																			
New York, N. Y.			29.97	761.2	48	8.9	70	Calm	0	0		0	Fog			0	0		
Norfolk, Va.			29.96	761.0	52	11.1	78	SE	6	2.7			10n			0.12	3.0	Light rain	
North Platte, Neb.			29.74	755.4	26	— 3.8	75	NW	18	8.0		10cs	2s	W		0	0		
Omaha, Neb.			29.92	760.0	31	— 0.6	84	N	8	3.6			10n			0	0	Light snow	
Oswego, N. Y.			30.01	762.2	38.8	3.8	67	W	2	0.9		Haze	Haze			0	0		
Peck's Beach			29.99	761.7	47	8.3	92	Calm	0	0			10s			0	0		
Pembina, D. T.			30.29	769.4	24	— 4.4	80	NE	4	1.8		5c	0			0.05	1.3		
Philadelphia, Penn.			29.98	761.5	49	9.4	71	SW	1	0.4		2ck	2s	W		0	0		
Pike's Peak, C. T.			29.59	751.6	— 4	—20.0	100	NW	36	16.1			10n		SW	0.08	2.0	Light snow	
Pittsburgh, Penn.			29.85	758.2	52	11.1	47	E	1	0.4			10s			0	0		
Port Huron, Mich.			29.95	761.7	39	3.9	72	NE	12	5.4			10s			0	0		
Portland, Maine			29.99	759.4	41	5.0	65	NW	2	0.9		10ck	0	NW		0	0		
Portland, Or.			30.39	771.9	45	7.2	92	SW	1	0.4			Fog			0	0		
Punta Rassa, Fla.			30.04	763.0	72	22.2	76	SE	17	7.6		2c	1ks	SW		0	0		
Rochester, N. Y.			29.99	761.7	42	5.6	58	NW	5	2.2		Haze	0			0	0		
Salt Lake City, Utah			30.14	765.5	37	2.8	71	Calm	0	0		5c	5s			0	0		
Sandy Hook, N. J.			29.96	761.0	46	7.8	85	SW	6	2.7		5c	Haze	W		0	0		
San Diego, Cal.			30.02	762.5	53	11.7	48	E	4	1.8		0	0			0	0		
San Francisco, Cal.			30.09	764.3	57	13.9	75	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.63	752.6	29	— 1.7	45	N	6	2.7		0	0			0	0		
Savannah, Georgia			29.92	760.0	69	20.6	75	S	12	5.4			10ks		SW	0	0		
Shreveport, La.			29.99	761.7	49	9.4	93	Calm	0	0		2c	0	W		0.01	0.3		
Springfield, Mass.			29.92	760.0	51	10.6	40	NW	8	3.6		2c	0	W		0	0		
St. Louis, Mo.			29.89	759.2	40	4.4	81	NW	9	4.0			10s			0.67	17.0		
St. Marks, Fla.			29.91	759.7	71	21.7	99	S	20	8.9			10s			0	0		
St. Paul, Minn.			29.94	760.5	30	— 1.1	78	N	8	3.6		8c	2s			0.06	1.5		
St. Paul's Island, Alaska			30.22	767.6	20	— 6.7	70	NNE	13	5.8		0	2k			0	0		
Squan Beach, N. J.			29.96	761.0	50	10.0	71	W	2	0.9		5k	0			0	0		
Toledo, Ohio			29.84	757.9	44	6.7	67	NE	16	7.2			10n			0	0	Threatening	
Tybee Island, Ga.			29.94	760.5	66	18.9	94	S	10	4.5			10n			0	0	Light rain	
Vicksburg, Miss.			29.99	761.7	53	11.7	73	N	8	3.6		2k	0	SE		0.98	24.9		
Virginia City, Mon.			29.94	760.5	35	1.7	52	Calm	0	0		Haze	0			0	0		
Washington, D. C.			29.96	761.0	52	11.1	76	Calm	0	0			10s			0	0		
Wilmington, N. C.			29.92	760.0	65	18.3	89	SW	6	2.7			10s			0.32	8.1		
Wood's Hole, Mass.			29.92	760.0	49	9.4	57	W	8	3.6		2c	0	NW		0	0		
Wytheville, Va.			29.66	753.4	50	10.0	86	E	4	1.8			10s			0.36	9.1		
Yankton, D. T.			30.06	763.5	27	— 2.8	88	N	12	4.4			10n			0.04	1.0	Light snow	

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	84	28.9		NE	5	2.2		5c	5ks	E		0	0		E. Racker.
Pointe-A Pitre, G'd'loupe, do			30.00	762.0	76	24.4		NE				5k	5n	NE		0	0	Hazy	L. V. Bigard.
Havana, Cuba, W. I.			29.81	757.2	74	23.3	71	SE	3.6	1.6		10c	0	SE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.21	767.3	76	24.4		S	1	0.4		2ck	0	E		0.02	0.5		James Gall.
St. Thomas, St. T., W. I.	30.28	769.1			75	23.9		E	9	4.0		0	1k			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.87	758.7	74	23.3	72	Calm	0	0		0	0			Blank	Blank		Robert Mason.
St. Georges, Bermudas			30.00	762.0	68.0	20.0	90	W	5	2.2		2ks	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	64	17.8	68	NE			2	0	2ks			0	0		E. P. Church.
Makawao, Maui, S. I.			30.10	764.5	61.5	16.4	77	NE	3.6	1.6		0	5ks		NE	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Mc herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.30	769.6	14.0	−10.0	100	N	12	5.4			10s			0.01	0.3		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	60	15.6	93	N	0.5	0.2		2c	0	E		0	0		C. Partridge.
St. John's, Newfoundland			30.18	766.6	28.5	− 1.9	72	SE				2c	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.15	765.8	78.8	26.0	44	E			4	3k	0			0	0		Leon M. Acuña.
Ellyria, Ohio			29.82	757.4	50	10.0	37	NE	12	5.4			10s			0	0		H. M. Redington.
Indianola, Iowa	29.01	736.8			36	2.2		NW					10n			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 12, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	66.4	19.1		SE			3		2			0	0		Charnot.
Algiers			29.98	761.6	62.6	17.0	66	W			2		4			0.295	7.5	Rain	Peter.
La Calle																			Kuntz.
Tunis			29.93	760.1	67.6	19.8	44	WNW			4		5			0.016	0.4		Jacques.
Sfax																			Chauvey.
Saida			29.98	761.4	59.4	15.2		WSW			4		3			0	0		Grosjean.
Tebessa			29.92	760.0	60.8	15.7		WNW			3		2			0	0		Colin.
Geriville			29.95	760.8	55.9	13.3		NW			2		2			0	0		Bernadach.
Laghouat			30.03	762.7	62.6	17.0	26	NW			1		1			0.039	1.0	Light rain	Poinsignon.
Biskra			30.03	762.8	70.5	21.4		NW			5		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.83	757.6	69.1	20.6	46	Calm			0		3			0	0		Prof. Ivan Stosir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.80	756.9	56.8	13.8	55	WSW			3		5			0.004	0.1		I. R. Observatory.
Eperies			29.78	756.4	58.5	14.7	47	NW			1		1k			0	0		Julius Mikolik.
Gratz			29.80	75[illegible].8	63.3	17.4	54	SSE			2		2			0	0		Andreas Rospini.
Hermannstadt			29.76	755.9	65.1	18.4	35	NW			4		3			0	0		Prof. Reissenberger.
Kremsmünster			29.80	756.9	59.7	15.4	48	E			3					0	0		Prof. C. Wagner.
Lemberg			29.71	754.6	53.4	11.9	59	W			4		3			0	0		Dr. T. Stanecki.
Nytregyhaza			29.81	757.2	63.0	17.2	55	Calm			0		0			0	0		Habesuda Daniel.
Pola			29.87	758.7	60.4	15.8	56	WSW			1		6ks			0	0		I. R. Hydrographic Office
Szegedin			29.81	757.1	65.8	18.8	41	W			2		4			0	0		Karl Stancel.
Trieste			29.86	758.4	64.[illegible]	18.2	58	NW			1		4			0	0		Prof. V. Farolfi.
Vienna			29.81	757.2	62.6	17.0	40	ESE			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.85	758.2			57.6	14.2	66	N			2		3		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.38	771.6	50.9	10.5		WNW	16	7.2			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.35	770.9	56	13.3		E			3		2					Haze	William McNeil.
Armagh Observatory			30.34	770.6	47.0	8.3		E	5	2.2			10						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.28	769.1	48.3	9.1		NW			1		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.30	769.6	53.0	11.7		SE			1		9						J. Dreyer, for L'd Rosse.
Bradford			30.24	768.1	46.6	8.1		N			2		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.23	767.8	42.1	5.6		N			2		10						M. Todd.
Cape Town, (Cape Colony)			29.93	760.2	73.4	23.0		SE			5		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.97	761.2			69.0	20.6	55	S	20	8.9			1						The Staff, for E. J. Stone
Cardington			30.25	768.3	43.4	6.3		NE					10						John McLaren.
Carlisle			30.33	770.4	52.0	11.1		E					7			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.18	766.6	43.3	6.3		NE			2		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.88	758.9	82.2	27.9		SE			1		3						Sgt. W. F. Hopkins
Dartmoor			30.25	768.3	52.5	11.4		NE			1		5						R. E. Power.
Donaghadee			30.34	770.6	51	10.6		E			4		2						J. Mac Gowan, Jr.
Dover			30.16	766.1	43	6.1		NNE			5							Fog	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.27	768.8	55.5	13.1		NE	2.0	0.9			0						Thomas Mackereth.
Falmouth Observatory			30.21	767.3	54.7	12.6		N	12	5.4			6					Fog	The Staff.
Fort Napier, (Natal)			29.90	759.4	73.0	22.8		SE			3		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.23	767.8	57	13.9		NE			1		7						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.12	765.0	64.5	18.1		W			4		2						Sergt. E. G. Baker.
Glasgow Observatory			30.34	770.6	51.5	10.8		ESE			3		6						James Gray.
Great Yarmouth			30.18	766.6	43	6.1		NNW			4		10					Mist	G. T. Watson.
Greenwich Royal Obs.			30.21	767.3	43.7	6.5		N			4		10						The Staff, for G. B. Airy.
Guernsey			30.15	765.8	48.5	9.2		NE			2		5					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.23	767.8	47.5	8.6		NE					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.09	764.3	30.4	-0.9		NE			4		9						Corp'l J. Y. Thompson.
Helston			30.15	765.8	55	12.8		N			4		10						Dr. W. B. Moyle.
Holyhead			30.28	769.1	47	8.3		NNE			3		0						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	44.2	6.8		N	21	9.4			10						The Staff.
Kingstown			30.32	770.1	46	7.8		NE			3		10					Haze	George Mitchell.
Lampeter																			
Leicester Museum			30.28	769.1	45.1	7.3		N			2		10						William J. Harrison
Llandudno			30.29	769.4	47.4	8.6		E			1		0						Dr. James Nicol.
Malta, (Mediterranean)			29.77	756.1	64.8	18.2		NW			3		8k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.40	772.1	48	8.9		E			1		10					Haze	William D. Penny.
Nassau, (Bahamas)			30.04	763.0	78.0	25.6		SE			3		5						Surg.-Maj. J. Jameson.
North Shields			30.36	771.1	45	7.2		NNE			4		8						John Wm. Irvine.
Nottingham			30.27	768.8	50.3	10.7		NNW			3		10k		N				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.26	768.6	45.1	7.3		NNE			3		10					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.22	767.6	45	7.2		N			1		10					Mist	J. Lucas, for R. Main.
Plymouth			30.17	766.3	58.0	14.4		S			1		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.24	768.1	52	11.1		ESE			4		10					Haze	W. Kennedy.
Saint Ann's Head			30.24	768.1	50	10.0		E			2		2						John C. Walker.
Saint Helier, (Jersey)			30.11	764.8	54.5	12.5		NNE			3		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.41	772.4	46.3	7.9		N	15	6.7			0						Rev. C. Clouston.
Scarborough			30.29	769.4	44.0	6.7		N			4		9						F. Shaw.
Scutari, (Turkey)			29.94	760.5	57.2	14.0		Calm			0		9					Showery	Sergt. W. H. Lyne.
Sheffield			30.26	768.6	49.9	9.9		NE			2		9			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.31	769.9	56.0	13.3		ENE			4		5			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	44.3	6.8		NNW			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.27	768.8	54.0	12.2		E			2		5					Haze	The Staff.
Stornoway, Lews C. (Hebr.)			30.36	771.1	49	9.4		ENE			2		0						John Smith.
Strathfield Turgiss			30.21	767.3	45.5	7.5		NE			1		10					Drizzling	Rev Charles H. Griffith
Streatley Vicarage			30.24	768.1	46.4	8.0		NNE			3		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.33	770.4	49	9.4		NE			5		5						William Lawrence.
Taunton College																			
Thurso			30.42	772.7	48	8.9		N			2		6					Haze	John Trotter.
Truro, Royal Institution			30.13	765.3	55	12.8		NE			2		10						W Newcombe.
Valencia Observatory			30.22	767.6	55.4	13.0		ESE	11	4.9			5						The Staff.
Wick																			
Wisbeach																			
Worthing			30.17	766.3	50.0	10.0		NNE			4		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.85	758.3	45.7	7.6	53	N			4		2						
Fanöe			29.93	760.2	50.5	10.3	76	N			6		1						
Godthaab, (Greenland)			30.14	765.6	28.9	-1.7		NNE			2		10						
Stykkisholm, (Iceland)			30.34	770.5	45.7	7.6	86	S			2		8						
Thorshavn, (Faröe)			30.46	773.6	47.8	8.8	76	E			2		1						
Vestervig			29.97	761.1	50.0	10.0	56	NE			2		1						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.86	758.5	54.5	12.5	87						10n						Normal School.
Alençon																			Normal School.
Amiens			30.04	763.1	56.1	13.4	73	N			4		1		ENE	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.02	762.5	60.8	16.0	50	ENE			5		5		ENE	0	0		Normal School.
Besançon			29.62	752.3	65.1	18.4	47	SW			3		0			0	0		Normal School.
Bourges			29.85	758.1	65.3	18.5	40	NE			6		8		NE	0	0		Normal School.
Brest			30.05	763.3	52.7	11.5	80	NE			3		8		NE	0	0		Naval Observatory.
Caen			30.10	764.5	46.8	8.2	86	NNE			6		10		NE	0.043	1.1		Normal School.
Carcassonne																			
Chartres			29.93	760.1	61.3	16.3		N			6		5		N	0	0		Normal School.
Chaumont			29.82	757.5	65.5	18.6		N			8		5		N	0	0		Normal School.
Le Mans			30.06	763.4	60.3	15.7	42	NE			3		8		NE	0	0		Normal School.
Mirecourt			29.78	756.3	63.1	17.3	25	NNE			4		1		NW	0	0		Normal School.
Orleans																			Normal School.
Paris			29.96	760.9	64.0	17.8		NE			6		8		NE	0	0		National Observatory.
Parthenay			29.89	759.1	57.2	14.0	53	NE			6		5		NE	0	0		Normal School.
La Roche sur Yon			29.95	76 .5	62.6	17.0	57	N			6		2		S	0	0		Normal School.
Rouen			30.06	763.5	60.8	16.0	70	W			4		0			0	0		Normal School.
Saint Lo			30.09	764.3	52.3	11.3	95	NE			3		10		NE	0.008	0.2		Normal School.
Villefranche			29.83	757.7	64.2	17.9	69	S			2		5		NE	0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)					37.2	2.9	78	NNE	7.4	3.3			1		W	0.043	1.1		Père Pascall.
Mont-Louis	24.60	624.7			64.6	18.1	41	NNE	15.4	6.9			7k		N	0	0		—. Falguère.
Montsouris (near Paris)			29.95	760.7	65.4	18.8	75	WNW	9.4	4.2			9			0.248	6.3		Marié Davy.
Perpignan	29.67	753.5			65.3	18.5	38	NNE			3		10			0	0		Dr. Fines.
Saint Maur, (near Paris)			29.95	760.7															E. Renou.
Saint Pier e, (Martinique)																			
Tours			29.92	759.9	64.0	17.8	36	ENE			2		10		NE	0	0		C. Marquet.
Versailles, (near Paris)			29.97	761.3	63.7	17.6	44	NE			4		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.10	764.5	55.9	13.3	63	SE	8.9	4.0			Fog			0	0	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.84	759.1	61.2	16.2	33	NE			1		2			0	0		Prof. Hoh.
Berlin			29.78	756.4	62.8	17.1	40	NW			4		4			0	0		Prof. Arndt.
Breslau			29.76	756.0	57.6	14.2	53	W			7		8			0	0		Dr. P. Neugebauer.
Carlsruhe			29.86	758.5	66.9	19.4	32	NE			5		0			0	0		A. Senz.
Cassel			29.84	757.9	64.9	18.3	53	NNW			2		1			0	0	Fog	Dr. H. Möhl.
Cologne			30.02	762.6	60.3	15.7	60	NE			5		0			0	0		Dr. Garthe.
Emden			30.11	764.7	45.3	7.4	74	NW			4		0			0	0		Prof. Prestel.
Frankfort on the Main			30.00	762.1	65.3	18.5	30	NNE			4		0			0	0		Physical Society.
Friedrichshafen			29.78	756.5	65.3	18.5	29	NE					3			0	0		M. Wilhelm.
Hamburg			29.98	761.4	43.5	6.4	83	WNW			6		10			0	0		W. Reinert.
Kiel			29.94	760.4	51.6	10.9	68	NNW			4		5			0	0		Prof. G. Karsten.
Königsberg			29.73	755.2	38.3	3.5	77	N			2		4			0.035	0.9		Prof. E. Luther.
Köslin			29.96	760.9	41.9	5.5		W			2		9			0	0		Dr. T gert.
Leipsic			29.90	759.5	58.6	14.8	60	SW			2		4			0	0		Prof. Bruhns.
Münster			29.98	761.5	57.2	14.0	84	N			4		0			0	0		Prof. E. Heis.
Posen			29.76	755.9	59.9	1 .5	45	W			7		10			0	0		Dr. Mageuer.
Strassburg, (in Alsace)			29.85	758.2	65.7	18.7	33	N					2			0	0		Hartwig and Tülk.
Stuttgart			29.84	758.0	64.9	18.3	40	NE					2			0	0		Mr. Würth.
Thorn			29.68	753.8	54.5	12.5	58	NW			6		9			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.88	759.0	64.6	18.1	40	SE			5		2			0	0		Prof. Flesch.
Wustrow			29.91	759.7	39.2	4.0	93	WNW			2		10			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.95	760.7	49.3	9.6	92	N	6.3	2.8			10	SE		0	0	Rain	
Mondovi			30.00	761.9	43.3	6.3	90	SW			4		10			0.480	12.2	Rain	
Genoa			29.86	758.1	54.9	12.7	74	NE	9.4	4.2			10	SE		0.114	2.9		
Pavia			29.93	760.3	54.3	12.4	80	NNE			1		10			0.268	6.8	Rain	
Verona			29.82	757.3	64.4	18.0	65	E			2		10			0	0		
Padua			29.86	758.4	61.7	16.5	58	NNE	0.7	0.3			6			0	0		
Parma														S					
Bologna			29.90	759.4	59.5	15.3	31	W			4		6			0	0		
Livorno			29.85	758.1	57.6	14.2	84	NE	7.4	3.3			10	W		0.028	0.7		
Urbino			29.89	759.1	51.3	10.7	91	NE			4		10			0.197	5.0		
Ancona			29.78	756.5	55.8	13.2	68	W			2		10			0	0		
Siena			29.84	758.0	56.3	13.5	89	E	0	0			10	E		0.024	0.6	Rain	
Rome			29.80	760.9	67.3	19.6	55	SE	9.4	4.2			10	SE		0.008	0.2	Light rain	
Naples, O.U.			29.86	758.4	72.5	22.5	55	N			2		9	SW		0	0		
Lecce			29.93	760.2	60.8	16.0	81	ESE	7.4	3.3			8			0	0		
Cosenza			29.86	758.4	64.8	18.2	83	NW			2		6	SE		0	0		
Catania, (Sicily)			29.85	758.3	62.2	16.8	72	ENE			4		0			0	0		
Riposto																			
Palermo			29.75	755.6	62.6	17.0	68	N			4		10			0	0		
Sub-Series.																			
Naples, S. R.	29.32	744.6			67.8	19.9	48	SW			1		cs			0.112	0.3		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.15	765.9	43.5	6.4		NE			5								
Groningen			30.01	762.3	44.6	7.0		N			4								
Helder			30.09	764.3	42.4	5.8		NNW			4								
Utrecht			30.08	763.9	45.9	7.7		NNW			3		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.14	765.5	45.0	7.2	42	N	25.3	11.3			2			0	0		
Christiania			29.98	761.5	46.0	7.8	29	NNE	15.7	7.0			6			0	0		
Tromsö			30.07	763.6	27.9	− 2.3	69	N			6		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.78	756.3			58.3	14.6	49	WSW	6.3	2.8			8						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.67	753.6	53.2	11.8	60	WSW	13	6			10						Astronomical Obs.
Wilna			29.62	752.4	40.8	4.9	52	W	10	4.5			10					Snow	Astronomical Obs.
Dorpat			29.66	753.3	33.4	0.8	58	NNW	11	5			6					Snow	Physical Cabinet.
St. Petersburg			29.45	747.9	30.7	− 0.7	68	NW	11	5			10						Central Physical Obs.
Kieff			29.67	753.6	47.8	8.8	32	NW	11	5			3						Physical Cabinet.
Nikolaiev			29.81	757.1	56.3	13.5	55	W	8	3.5			8						
Kertch			29.86	758.4	54.9	12.7	71	W	17	7.5			9						Lagorio.
Moscow			29.36	745.7	36.1	2.3	68	W	8	3.5			9						Meteorological Obs.
Lugan			29.56	750.8	47.8	8.8	49	W	17	7.5			5						Meteorological Obs.
Archangel			29.25	742.9	21.9	− 5.6	80	NW	20	9			10						Ogorodnikof.
Tiflis			29.97	761.2	52.5	11.4	42	NW	31	14			2						Physical Obs.
Astrakhan			29.82	757.3	48.9	9.4	71	W	13	6			10					Rain	Sebastianof.
Kasan			29.25	743.0	36.7	2.6	62	WSW	13	6			9						Physical Cabinet.
Orenburg			29.60	751.9	41.0	5.0	84	SE	8	3.5			10						Tschernischef.
Ekaterinburg			29.34	745.3	38.7	3.7	62	S	10	4.5			7						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.92	760.0	49.5	9.7	65	Calm	0	0			4						Meteorological Obs.
Yeniseisk			29.85	758.3	41.5	5.3	61	N	4	2			5						Marks.
Irkutsk																			Usolzef.
Oorga			29.99	761.7	41.7	5.4	100	E	4	2			10						Mossin.
Peking, (China)			30.04	762.9	50.7	10.4	48	S	8	3.5			0						Physical Observatory
Nertchinsk			29.80	757.0	27.1	− 2.7	74	Calm	0	0			7						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.98	761.4	53.4	11.9	47	NW	13.4	6.0		0	7			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.85	758.1	30.6	— 0.8	77	NNE			7		10			0	0		
Hernosand			29.88	758.8	34.5	1.4	53	N			5		8			0.01	0.2		
Stockholm			29.78	755.4	34.2	1.2	80	N			3		8			0.02	0.4		
Wisby			29.82	757.4	36.3	2.4	82	NE			1		0			0.03	0.7		
Sub-Series.																			
Upsala			29.84	757.8	32.2	0.1	86	N			6		10		NE				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.37	720.7			57.7	14.3	42	N			2		7			0	0	Mist	The Observatory.
Zurich	28.17	715.4			65.3	18.5	31	E			1		2			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, —3.5mm.; Thermometer, +2°.8 C.; Relative Humidity, —15 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.00	761.9	68.2	20.1	77	SW			1		0						
Constantinople			29.98	761.5	62.8	17.1	61	SW	2	1			10		W	0	0	Light rain	
Fao, (Persian Gulf)			30.12	765.0	69.8	21.0		SE			3		5						
Salonica			29.88	759.0	68.4	20.2		SE			2		5						
Valona			29.85	758.2	70.3	21.3		W			1		10						
Varna			29.92	760.0	64.4	18.0		NW			2		5						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

NOTE.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.07	763.8	35	1.7		NE	6	2.7		2c	2s	N	SW	0	0		
Chatham, N. B.			30.22	767.6	28	— 2.2	88	N	11	4.9			Haze			0	0		
Charlottetown, P. E. Island			30.14	765.5	28	— 2.2	97	N	15	6.7			10s			0.05	1.3		
Fort Garry, Manitoba			30.18	766.6	31	— 0.6	95	NW	3	1.3		2ck	5ks	NW	NW	0	0		
Halifax, N. S.			29.97	761.2	33	0.6	88	N	10	4.5		0	2ks			0	0		
Kingston, Ontario			30.1	762.2	36	2.2	89	NE	3	1.3		8ks	0			0	0		
Montreal, Quebec			30.11	764.8	32	0.0	70	E	8	3.6		0	0			0	0		
Ottawa, Ontario			30.08	764.0	30	— 1.1	59	NE	8	3.6		0	0			0	0		
Parry Sound, Ontario			29.97	761.2	35	1.7	64	NE	8	3.6		2cs	2ks	NW	NW	0	0		
Port Dover, Ontario			29.89	759.2	37	2.8	71	NE	10	4.5		10	0	NW		0	0		
Port Stanley, Ontario			29.89	759.2	41	5.0	65	NE	6	2.7		0	0			0	0		
Quebec, Quebec			30.26	768.6	29	— 1.7	77	E	4	1.8		5k	2ks	E	E	0	0		
Saugeen, Ontario			29.92	760.0	38	3.3	81	Calm	0	0			10n			0	0		
Stayner, Ontario			29.94	760.5	37	2.8	62	Calm	0	0			8n			0	0		
Sydney, C. B.			30.07	763.8	29	— 1.7	85	NE	11	4.9			10n		NE	0.46	11.7		
Toronto, Ontario			29.93	760.2	37	2.8	56	E	13	5.8			10n		E	Blank	Blank		

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.08	764.0	40	4.4	63	E	4	1.8			10s			0	0		
Alpena, Mich.			29.90	759.4	37	2.8	70	E	4	1.8			10ks			0	0		
Atlantic City, N. J.			29.95	760.7	44	6.7	92	E	22	9.8						0.08	2.0		
Augusta, Ga.			29.81	757.2	64	17.8	94	Calm	0	0			10s			1.82	46.2		
Baltimore, Md.			29.91	759.7	50	10.0	86	E	8	3.6			10s		E	0.12	3.0		
Barnegat, N. J.			29.97	761.2	42	5.6	91	NE	16	7.2			10n		NE	0.02	0.5	Threatening	
Benton, Montana			30.37	771.4	32	0.0	79	SW	1	0.4		0	0			0	0		
Bismarck, Dakota			30.19	766.8	19	— 7.2	69	N	2	0.9		0	0			0	0		
Boston, Mass.			30.16	766.1	40	4.4	73	NE	10	4.5			10s			0	0		
Breckenridge, Minn.			30.15	765.8	29	— 1.7	89	N	10	4.5		2k	0	N		0	0		
Buffalo, N. Y.			29.86	758.4	39	3.9	81	E	2	0.9			10k			0.12	3.0		
Burlington, Vt.			30.10	764.5	34	1.1	71	Calm	0	0		2c	0			0	0		
Cairo, Ill.			29.93	760.2	45	7.2	37	W	8	3.6		2c	0	W		0	0		
Cape Hatteras, N. C.			29.84	757.9	64	17.8	94	NE	12	5.4			10ks		SE	0.13	3.3		
Cape Henry, Va.			29.86	758.4	59	15.0	93	Calm	0	0			10s			0.02	0.5		
Cape May, N. J.			29.90	759.4	47	8.3	85	E	16	7.2			10s		SE	0.28	7.1		
Charleston, S. C.			29.85	758.2	65	18.3	100	SW	2	0.9			10n			1.62	41.1	Light rain	
Cheyenne, W. T.			30.08	764.0	19	— 7.2	67	W	16	7.2		0	0			0.01	0.3		
Chicago, Ill.			29.83	757.7	43	6.1	75	S	3	1.3		0	8ks			0.18	4.6		
Cincinnati, Ohio			29.84	757.9	48	8.9	47	SE	3	1.3		10cs	0			0	0		
Cleveland, Ohio			29.87	758.7	39.8	4.3	86	W	6	2.7		0	0			0.12	3.0		
Colorado Springs, Col.			30.09	764.3	15	— 9.4	65	W	1	0.4		0	0			0	0		
Corsicana, Texas			30.23	767.8	43	6.1	75	NW	14	6.3		8k	0	NW		0	0		
Davenport, Iowa			29.80	756.9	38	3.3	90	SE	8	3.6		0	2s			0.20	5.1		
Denver, Col.			30.21	767.3	17	— 8.3	67	S	6	2.7		0	0			0.16	4.1		
Detroit, Mich.			29.86	758.4	39	3.9	81	SW	3	1.3		0	Haze			0	0		
Dodge City, Kansas			29.88	758.9	28	— 2.2	77	NW	16	7.2		2c	0			0	0		
Dubuque, Iowa			29.81	757.2	36	2.2	90	S	2	0.9			10s			0.96	24.4		
Duluth, Minn.			30.01	762.2	36	2.2	62	NE	5	2.2		4ck	0	NE		0	0		
Eastport, Me.			30.22	767.6	30	— 1.1	59	NE	9	4.0		10k	0	NE		0	0		
Erie, Penn.			29.84	757.9	42	5.6	83	SW	8	3.6			10s			0.20	5.1		
Escanaba, Mich.			29.91	759.7	32	0.0	79	NW	4	1.8			10s			0	0		
Fort Gibson, I. T.			30.05	763.3	39	3.9	63	W	12	5.4		0	2ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.30	769.7	24	— 4.4	80	NW	10	4.5		0	0			0	0		
Galveston, Texas			30.11	764.8	55	12.8	57	N	36	16.1		2c	0	W		0	0		
Grand Haven, Mich.			29.86	758.4	45	7.2	60	S	7	3.1		5ck	0	SW		0.01	0.3		
Indianapolis, Ind.			29.82	757.4	46	7.8	68	NW	4	1.8			8s		NW	0	0		
Indianola, Texas			30.13	765.3	52	11.1	59	N	42	18.8		2c	0	W		0	0		
Jacksonville, Fla.			29.87	758.7	68	20.0	90	SW	5	2.2			10n			1.40	35.6	Light rain	
Keokuk, Iowa			29.73	755.1	38	3.3	71	S	7	3.1			8ks			0.14	3.5		
Key West, Fla.			29.97	761.2	77.3	25.2	73	S	9	4.0		Haze	Sm'e			0	0		
Kittyhawk, N. C.			29.86	758.4	51	10.6	100	E	8	3.6			Fog			0.05	1.3	Fog	
Knoxville, Tenn.			29.84	757.9	50	10.0	64	N	8	3.6		5ck	Haze	SW		0.01	0.3		
La Crosse, Wis.			29.85	758.2	37	2.8	100	NE	9	4.0			10n			0.33	8.4	Light rain	
Leavenworth, Kan.			29.80	756.9	35	1.7	90	NW	8	3.6			10n			0.21	5.3	Light rian	
Lexington, Ky.			29.85	758.2	50	10.0	64	SE	8	3.6		8c	0	W		0	0		
Long Branch, N. J.			30.04	763.0	42	5.6	83	NE	20	8.9			10s			0.06	1.5		
Louisville, Ky.																			
Lynchburg, Va.			29.83	757.7	55	12.8	87	NE	1	0.4			10s			0.05	1.3		
Malone, N. Y.																			
Marquette, Mich.			29.95	760.7	35	1.7	70	NW	4	1.8		5cs	0	NE		0	0		
Memphis, Tenn.			30.00	762.0	48	8.9	56	NW	4	1.8		2c	2s			0.01	0.3		
Milwaukee, Wisconsin			29.86	758.4	37	2.8	100	SE	3	1.3			Fog			0.53	13.5	Fog	
Mobile, Ala.			29.93	760.2	57	13.9	57	N	6	2.7		0	0			0.19	4.8		
Montgomery, Ala.			29.90	759.4	59	15.0	70	Calm	0	0		0	0			0.58	14.7		
Morgantown, W. Virginia			29.86	758.4	54	12.2	66	S	2	0.9		0	2s			0.51	13.0		
Mt. Washington, N. H.			30.02	762.5	16	— 8.9	83	NW	16	7.2			8s			0	0		
Nashville, Tenn.			29.88	758.9	51	10.6	65	NW	6	2.7		2k	0	SW		0	0		
New Haven, Conn.			30.11	764.8	42	5.6	66	NE	10	4.5			10s			0	0		
New London, Conn.			30.13	765.3	40	4.4	82	E	13	5.8			10s		E	0	0		
New Orleans, La.			29.95	760.7	61	16.1	55	N	6	2.7		2k	0			0.11	2.8		
Newport, R. I.																			
New York, N. Y.			30.08	764.0	42	5.6	83	E	16	7.2			10s			0.01	0.3		
Norfolk, Va.			29.88	758.9	55	12.8	93	SE	3	1.3			10s			0.03	0.8		
North Platte, Neb.			29.94	760.5	28	— 2.2	77	NW	12	5.4			10s		NW	0.02	0.5		
Omaha, Neb.			29.89	759.2	33	0.6	95	N	24	10.7			10n			0.52	13.2	Sleet	
Oswego, N. Y.			29.94	760.5	38.1	3.4	86	SE	11	4.9			10n			0.02	0.5	Light rain	
Peck's Beach			29.85	758.2	45	7.2	92	E	16	7.2			10s			0	0		
Pembina, D. T.			30.13	765.3	32	0.0	84	NW	4	1.8		10c	0			0	0		
Philadelphia, Penn.			29.98	761.5	45	7.2	76	E	19	8.5		2k	8s	W	W	0.21	5.3		
Pike's Peak, C. T.			29.80	756.9	— 4	—20.0	100	NW	16	7.2		0	2s			0.02	0.5		
Pittsburgh, Penn.			29.87	758.7	50	10.0	71	SE	4	1.8		0	0			0.12	3.0		
Port Huron, Mich.			29.85	758.4	42	5.6	74	NE	5	2.2		0	0			0.01	0.3		
Portland, Maine			30.23	767.8	35	1.7	80	NE	9	4.0		0	8ks			0	0		
Portland, Or.			30.30	769.6	47	8.3	70	N	4	1.8		Haze	Haze			0	0		
Punta Rassa, Fla.			29.96	761.0	76.6	24.8	84	S	22	9.8		8cs	Sm'e	SE		0	0		
Rochester, N. Y.			29.88	758.9	37	2.8	90	NE	7	3.1			10			0.13	3.3	Light rain	
Salt Lake City, Utah			30.12	765.0	42	5.6	65	S	16	7.2		5c	5s			0	0		
Sandy Hook, N. J.			30.03	762.7	43	6.1	75	E	20	8.9			10s		E	0.03	0.8		
San Diego, Cal.			29.90	759.4	54	12.2	86	SE	4	1.8			10s			0	0		
San Francisco, Cal.			29.85	758.2	58	14.4	70	NE	4	1.8		2c	5s			0	0		
Santa Fe, N. M.			29.80	756.9	24	— 4.4	55	Calm	0	0			8s			0	0		
Savannah, Georgia			29.84	757.9	66	18.9	94	S	8	3.6			10n			1.85	47.0	Light rain	
Shreveport, La.			30.14	765.5	48	8.9	36	N	13	5.8		5ck	0	W		0	0		
Springfield, Mass.			30.14	765.5	38	3.3	80	NE	4	1.8			10ks		E	0	0		
St. Louis, Mo.			29.87	758.7	41	5.0	48	SW	16	7.2		5c	0			0	0		
St. Marks, Fla.			29.86	758.4	67	19.4	94	SW	5	2.2			10n			1.52	38.6	Light rain	
St. Paul, Minn.			29.88	758.9	32	0.0	69	N	16	7.2		8ck	8s	NE		0	0		
St. Paul's Island, Alaska			30.25	768.3	22	— 5.6	72	N	12	5.4		0	1k			0	0		
Squan Beach, N. J.			30.01	762.2	41	5.0	82	NE	10	4.5			10s		NE	0.10	2.5		
Toledo, Ohio			29.91	759.7	45	7.2	76	S	2	0.9		2c	0	SW		0.03	0.8		
Tybee Island, Ga.			29.84	757.9	65	18.3	100	SW	2	0.9			10n			1.87	47.5	Heavy rain	
Vicksburg, Miss.			30.10	764.5	53	11.7	53	N	14	6.3		0	0			0	0		
Virginia City, Mon.			29.98	761.5	32	0.0	69	SE	8	3.6		0	0			0	0		
Washington, D. C.			29.90	759.4	50	10.0	96	NE	10	4.5			10s		NE	0.03	0.8	Threatening	
Wilmington, N. C.			29.85	758.2	62	16.7	94	N	5	2.2			10s			0.18	4.6		
Wood's Hole, Mass.			30.16	766.1	41	5.0	65	E	12	5.4			5s			0	0		
Wytheville, Va.			29.61	752.1	50	10.0	64	E	2	0.9		5k	0	W		0.32	8.1		
Yankton, D. T.			30.13	765.3	31	— 0.6	79	NW	34	15.2		8k	2s	NW	NE	0.24	6.1		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	77	25.0		NE	6	2.7		0	0			0.80	20.3		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.90	761.7	77	25.0		E				5c	5ks	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.74	755.4	80	26.7	82	S	6	2.7		2fck	0	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	76	24.4		Calm	0	0		0	2s			0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			76	24.4		ENE	13	5.8		1ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	76	24.4	72	NE	1.2	0.5		5cs	5s	SE		0	0		Robert Mason.
St. Georges, Bermudas			29.90	761.0	69.5	20.8	85	WSW	15.6	7.0		8ck	1d	NW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	63	17.2	68	NE			2	5n	5k	S		0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.15	765.8	14.5	— 9.7	100	W	4	1.8			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	63	17.2	90	S	3.0	1.3		5c	2k	SE		0	0		C. Partridge.
St. John's, Newfoundland			30.04	763.0	32	0.0	89	NE				Haze	Haze			0	0	Snowing	John Delaney.
St. John's, Porto Rico, W. I.			30.13	765.2	76.3	24.6	58	E			3	1ck	0			0	0		Leon M. Acuña.
Ellyria, Ohio			29.89	759.2	41	5.0	67	SW	3	1.3		0	0			0	0		H. M. Redington.
Indianola, Iowa	28.92	734.6			34	1.1		N					10n			0.13	3.3	Light rain	G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 13, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	65.7	18.7		SE			4		1			0	0		Charnot.
Algiers			30.01	762.2	60.8	16.0	71	W			1		7			0.075	1.9		Peter.
La Calle																			Kuntz.
Tunis			30.28	769.1	70.3	21.3	32	WNW			3		3			0	0		Jacques.
Sfax																			Chauvey.
Saïda			29.99	761.8	61.0	16.1		NW			4		2			0	0		Grosjean.
Tebessa			29.96	761.0	63.9	17.7		NW			3		10			0.236	6.0	Rain	Colin.
Geriville			29.99	761.7	55.8	13.2		NW			2		2			0	0		Bernadach.
Laghouat			29.99	761.8	55.0	12.8	52	S			1		8			0	0		Poinsignon.
Biskra			29.94	760.5	69.3	20.7		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			29.74	755.4	46.0	7.8	42	NE			4		10			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.82	757.5	36.5	2.5	61	W			4		7			0	0		I. R. Observatory.
Eperies			29.72	754.8	36.7	2.6	79	W			5		10		S	Blank	Blank	Snow.	Julius Mikolik.
Gratz			29.81	757.1	45.5	7.5	46	NW			7		0			0	0		Andreas Rospini.
Hermannstadt			29.36	745.7	54.7	12.6	61	NW			4		10			0.203	5.15	Rain	Prof. Reissenberger.
Kremsmünster			29.95	760.6	41.4	5.2	45	NE			2					0.067	1.7		Prof. C. Wagner.
Lemberg			29.67	753.7	37.8	3.2	55	N			2		9			0.019	0.49	Snow	Dr. T. Stanecki.
Nyiregyhaza			29.61	752.0	46.0	7.6	59	N			5		3			0.027	0.68		Habesuda Daniel.
Pola			29.58	751.2	59.2	15.1	83	SSW			1		9ks			0	0		I. R. Hydrographic Of'ce
Szegedin			29.56	750.7	48.6	9.2	51	E			4		10			0	0		Karl Stancel.
Trieste			29.57	751.0	59.0	15.0	74	Calm			0		6			0.284	7.2		Prof. V. Farolfi.
Vienna			29.87	758.7	41.9	5.5	36	N			3		6			0.004	0.1		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	29.98	761.4			50.5	10.3	38	E			3		0		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.35	770.9	43.9	6.6		SE	14	6.3			1			0	0		William Boswell.
Annanhill																			
Ardrossan			30.35	770.9	53.5	11.9		SW			2		0					Light fog	William McNeil.
Armagh Observatory			30.35	770.9	54.1	12.3		E	10	4.5			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.31	769.9	49.3	69.6		E			2		0					Haze	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.28	769.1	61.6	16.4		SE			1		0						J. Dreyer, for L'd Rosse.
Bradford			30.29	769.4	46.1	7.8		NE			1		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.30	769.6	47.5	8.6		NE			1		7						H. Todd.
Cape Town, (Cape Colony)			29.83	757.7	69.8	21.0		W			4		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.83	757.7			74.4	23.6	50	NW	10	4.5			9						The Staff, for E. J. Stone
Cardington			30.32	770.1	47.0	8.3		NE					8						John McLaren.
Carlisle			30.34	770.6	52.6	11.4		E					0			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.26	768.6	48.0	8.9		NE			3		3						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.87	758.7	83.0	28.3		SE			2		5						Sgt. W. F. Hopkins
Dartmoor			30.25	768.3	44.2	6.8		SE			3		1						R. E. Power.
Donaghadee			30.35	770.9	50	10.0		E			3		0						J. Mac Gowan, Jr.
Dover			30.24	768.1	46	7.8		NE			4		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.32	770.1	49.4	9.7		E	2.8	1.3			5					Haze	Thomas Mackereth.
Falmouth Observatory			30.27	768.8	45.7	7.6		ESE	24	10.7			1						The Staff.
Fort Napier, (Natal)			29.91	759.7	75.0	23.9		NE			4		6						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.23	767.8	62	16.7		E			1		2						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.13	765.3	66.5	19.2		SSW			4		3						Sergt. E. G. Baker.
Glasgow Observatory			30.34	770.6	48.6	9.2		NNE			1		5					Mist	James Gray.
Great Yarmouth			30.31	769.9	46	7.8		NNE			3		3						G. T. Watson.
Greenwich Royal Obs.			30.28	769.1	48.4	9.1		ENE			1		7						The Staff, for G. B. Airy.
Guernsey			30.22	767.6	45.0	7.2		NE			5		7						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.29	769.4	45.4	7.4		E					8						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.16	766.1	28.3	— 2.1		NE			1		5						Corp'l J. Y. Thompson.
Helston			30.21	767.3	51	10.6		ENE			6		4						Dr. W. B. Moyle.
Holyhead			30.32	770.1	49	9.4		N			3		0						John Tilston.
Hull Park																			
Kew Observatory			30.28	769.1	46.1	7.8		NE	9	4.0			9					Mist	The Staff.
Kingstown			30.35	770.9	47	8.3		ESE			2		1						George Mitchell.
Lampeter																			
Leicester Museum			30.35	770.9	43.0	6.1		E			2		10						William J. Harrison.
Llandudno			30.29	769.4	47.5	8.6		NE			2		0						Dr. James Nicol.
Malta, (Mediterranean)			29.90	759.4	66.0	18.9		NW			1		1k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.32	770.1	50	10.0		Calm			0		10					Haze	William D. Penny.
Nassau, (Bahamas)			30.04	763.0	76.5	24.7		S			4		7						Surg.-Maj. J. Jameson.
North Shields			30.37	771.4	45	7.2		NE			3		6						John Wm. Irvine.
Nottingham			30.34	770.6	45.0	7.2		NNE			2		10k		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.32	770.1	43.0	6.1		NNE			3		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.28	769.1	45	7.2		NE			1		10						J. Lucas, for R. Main.
Plymouth			30.25	768.3	50.0	10.0		E			5		4						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.26	768.6	52	11.1		E			5		10					Fog	W. Kennedy.
Saint Ann's Head			30.26	768.6	47	8.3		SE			2		1						John C. Walker.
Saint Helier, (Jersey)			30.19	766.8	47.8	8.8		E			6		5						A. P. Amy.
Sandwick Manse (Orkneys)			30.33	770.1	47.3	8.5		S	7	3.1			10						Rev. C. Clouston.
Scarborough			30.34	770.6	45.2	7.3		NNE			2		9						F. Shaw.
Scutari, (Turkey)			29.56	750.8	64.0	17.8		SW			1		4						Sergt. W. H. Lyne.
Sheffield			30.33	770.4	45.3	7.4		ESE			2		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.34	770.6	54.1	12.3		NE			1		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.29	769.4	49.0	9.4		ENE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.32	767.6	48.8	9.3		NE			2		4					Haze	The Staff.
Stornoway, Lews C. (Hebr)			30.29	769.4	55	12.8		ESE			1		0						John Smith.
Strathfield Turgiss			30.28	769.1	48.1	8.9		E			1		3						Rev Charles H. Griffith
Streatley Vicarage			30.32	770.1	47.5	8.6		NNE			2		5						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.29	769.4	50	10.0		W			2		8						William Lawrence.
Taunton College																			
Thurso			30.31	769.9	54	12.2		SSE			1		8						John Trotter.
Truro Royal Institution			30.19	766.8	53	11.7		E			6		4						W Newcombe.
Valencia Observatory			30.23	767.8	54.0	12.2		N	4	1.8			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.25	768.3	49.3	9.6		NE			2		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.21	767.2	39.0	3.9	40	N			4		2						
Fanöe			30.28	769.2	42.4	5.8	58	W			4		1						
Godthaab, (Greenland)			30.02	762.4	28.6	— 1.9		NE			2		8					Fog	
Stykkisholm, (Iceland)			30.23	767.8	42.8	6.0	88	Calm			0		8						
Thorshavn, (Faröe)			30.23	767.8	45.9	7.7	94	WSW			2		10					Fog	
Vestervig			30.27	768.9	41.5	5.3	68	NNW			4		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.71	754.6	53.6	12.0	80						10n						Normal School.
Alençon																			Normal School.
Amiens			30.15	765.8	52.2	11.2	69	N			4		2		N	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.16	766.0	51.1	10.6	35	ENE			5		0			0	0		Normal School.
Besançon			29.96	760.9	57.2	14.0	61	NE			6		0			0	0		Normal School.
Bourges			30.00	762.1	51.4	10.8	53	NNE			8		2		N	0	0		Normal School.
Brest			30.09	764.3	52.7	11.5	63	NE			3		0			0	0		Naval Observatory.
Caen			30.13	765.4	46.6	8.1	64	NW			6		5		NE	0	0		Normal School
Carcassonne																			
Chartres			30.09	764.4	51.6	10.9		NE			2		2		NE	0	0		Normal School.
Chaumont			30.00	762.0	52.9	11.6		N			8		0			0	0		Normal School.
Le Mans			30.21	767.2	49.5	9.7	50	E			3		2		NE	0	0		Normal School.
Mirecourt			30.97	761.3	50.4	10.2	37	NE			6		2		W	0	0		Normal School.
Orleans																			Normal School.
Paris			30.12	765.0	52.2	11.2		NNE			3		2			0	0		National Observatory.
Parthenay			30.00	761.9	56.3	13.5	47	N			6		0			0	0		Normal School.
La Roche sur Yon			30.09	764.2	56.7	13.7	57	NE			4		0			0	0		Normal School.
Rouen			30.17	766.2	55.4	13.0	38	E			6		0			0	0		Normal School.
Saint Lo			30.13	765.2	62.6	17.0	61	E			6		5		E	0	0		Normal School.
Villefranche			29.95	760.7	61.0	16.1	87	SE			3		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.69	627.2			44.4	6.9	69	NNE	18.6	8.3			4		NNE	0.193	4.9		—. Falguère.
Montsouris (near Paris)			30.10	764.5	53.2	11.8	38	NE	12.8	5.7			0			0	0		Marié Davy.
Perpignan	29.84	758.0			63.7	17.6	54	W	28.1	12.5			2			0.028	0.7		Dr. Fines.
Saint Maur, (near Paris)			30.11	764.7	54.9	12.7	41	NE			2		1			0	0		E. Renou.
Saint Pier e, (Martinique)																			
Tours			30.18	766.5	50.5	10.3	48	NE			3		0			0	0		C. Marquet.
Versailles, (near Paris)			30.11	764.0	53.6	12.0	41	NE			4		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.96	760.9	57.2	14.0	89	SE	19.5	8.7			Fog			0	0	Fog	H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.93	760.3	41.9	5.5	57	NE			7		6			0	0		Prof. Hoh.
Berlin			30.21	767.[illegible]	39.4	4.1	36	NE			5		9			0.024	0.1		Prof. Arndt.
Breslau			30.03	762.7	37.2	2.9	50	N			8		8			0.075	1.9	Snow & hail.	Dr. P. Neugebauer.
Carlsruhe			30.04	763.0	50.4	10.2	33	NW			5		10			0	0		A. Senz.
Cassel			30.12	765.0	46.2	7.9	41	NE			4		6			0	0		Dr. H. Möhl.
Cologne			30.14	765.5	48.6	9.2	43	NNE			7		0			0	0		Dr. Garthe.
Emden			30.35	770.9	43.9	6.6	38	ENE			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.21	767.2	50.0	10.0	31	NNE			4		5			0	0		Physical Society.
Friedrichshafen			29.97	761.1	49.1	9.5	32	NE					6			0	0		M. Wilhelm.
Hamburg			30.30	769.5	39.7	4.3	44	NE			4		4			0	0		W. Reinert.
Kiel			30.28	769.1	39.7	4.3	44	N			3		1			0	0		Prof. G. Karsten.
Königsberg			29.09	761.8	36.5	2.5	53	N			4		6			0.004	0.1	Snow.	Prof. E. Luther.
Köslin			30.30	769.6	35.6	2.0		NE			6		5			0.035	0.9		Dr. T gert.
Leipsic			30.18	766.5	38.5	3.6	46	NE			3		9			0	0		Prof. Bruhns.
Münster			30.21	767.3	48.4	9.1	52	E			2		0			0	0		Prof. E. Heis.
Posen			30.08	763.9	37.4	3.0	58	N			8		10			0.020	0.5		Dr. Magener.
Strassburg, (in Alsace)			30.03	762.8	52.0	11.1	26	NE					1			0	0		Hartwig and Tülk.
Stuttgart			30.02	762.5	48.2	9.0	40	NE					6			0	0		Mr. Würth.
Thorn			29.99	761.7	37.4	3.0	54	N			6		7			0.020	0.5	Snow.	Dr. [illegible]enbalg.
Treves, (Trier)			30.02	762.8	52.0	11.6	22	NE			8		0			0	0		Prof. Plesch.
Wustrow			29.87	758.6	37.8	3.2	64	NW			3		7			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.54	750.3	64.2	17.9	60	ESE	6.0	2.5			1			0	0		
Mondovi			29.53	750.1	63.7	17.6	23	NW			1		0			0	0		
Genoa			29.63	752.5	58.3	14.6	72	Calm			0		8	SE		0	0		
Pavia			29.53	750.1	67.6	19.8	44	W			4		0			0	0		
Verona			29.51	749.5	66.4	19.1	64	E			1		0			0	0		
Padua			29.52	749.9	62.2	16.8	69	SE	1.8	0.8			3	WNW		0	0		
Parma																			
Bologna			29.54	750.3	63.5	17.5	35	W			4		3	N		0	0		
Livorno			29.64	752.8	56.7	13.7	80	W	12.5	5.6			10			0	0		
Urbino			29.57	751.0	54.9	12.7	86	SSW			2		10			0.315	8.0		
Ancona			29.63	752.7	54.3	12.4	92	W			4		10			0	0		
Siena			29.63	752.5	52.3	11.3	91	SE	0	0			10	W		0.012	0.3	Light rain	
Rome			29.68	753.9	54.5	12.5	88	WSW	11.9	5.3			10			0.110	2.8	Rain	
Naples, O.U.			29.74	755.3	60.4	15.8	63	W			6		10	SW		0.079	2.0		
Lecce			29.70	754.4	59.7	15.4	60	W	36.7	16.4			3			0	0		
Cosenza			29.82	757.3	55.0	12.8	69	SSE			2		10			0.169	4.3	Rain	
Catania, (Sicily)			29.86	758.4	60.1	15.6	55	W			4		2	W		0	0		
Riposto																			
Palermo			29.78	756.5	58.8	14.9	59	WSW			4		5			0.024	0.6		
SUB-SERIES.																			
Naples, S. R.	29.19	741.4			55.4	13.0	70	SW			8		ck	SW		0.508	12.9		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.25	768.4	50.9	10.5		NNE			5								
Groningen			30.22	767.5	45.3	7.4		NNE			4								
Helder			30.27	768.8	45.3	7.4		NE			3								
Utrecht			30.20	767.1	49.3	9.6		NNE			4		2						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.22	767.7	45.0	7.2	58	S	15.2	6.8			2			0	0		
Christiania			30.19	766.7	41.4	5.2	38	SW	5.6	2.5			0			0	0		
Tromsö			29.70	754.4	32.5	0.3	96	SSW			6		10			0.016	0.4	Snow	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.78	756.3			57.9	14.4	76	S	8.7	3.9			9						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.88	758.9	32.5	0.3	87	NNW	11	5			6						Astronomical Obs.
Wilna			29.84	757.9	34.0	1.1	68	NNW	13	6			10						Astronomical Obs.
Dorpat			29.91	759.6	32.9	0.5	59	NNW	9	4			10						Physical Cabinet.
St. Petersburg			29.76	756.0	30.4	− 0.9	63	NW	11	5			10					Light snow	Central Physical Obs.
Kieff			29.63	752.6	31.3	− 0.4	94	NNE	11	5			10					Sleet	Physical Cabinet.
Nikolaiev			29.42	747.2	61.3	16.3	62	S	13	6			6						
Kertch			29.64	752.9	55.2	12.9	70	S	20	9			6						Lagorio.
Moscow			29.63	752.6	32.4	0.2	62	N	8	3.5			7						Meteorological Obs.
Lugan			29.43	747.5	49.8	9.9	64	SW	25	11			9						Meteorological Obs.
Archangel			29.58	757.2	21.9	− 5.6	70	NNW	20	9			10						Ogorodnikof.
Tiflis			29.94	760.5	65.8	18.8	29	S	4	2			2						Physical Obs.
Astrakhan			29.97	761.1	57.6	14.2	49	SSW	13	6			8						Sebastianof.
Kasan			29.45	748.0	37.8	3.2	75	W	8	3.5			6						Physical Cabinet.
Orenburg			29.57	751.0	37.0	2.8	66	SW	8	3.5			10						Tschernischef.
Ekaterinburg			29.46	748.3	36.7	2.6	49	W	17	7.5			8						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.02	762.5	48.0	8.9	65	Calm	0	0			1						Meteorological Obs.
Yeniseisk			29.80	756.8	47.8	8.8	71	S	4	2			6						Varks.
Irkutsk																			Usolzef.
Oorga			30.14	765.5	37.8	3.2	50	Calm	0	0			0						Mossin.
Peking, (China)			29.87	758.7	55.9	13.3	66	S	8	3.5			3						Physical Observatory.
Nertchinsk			30.07	763.7	26.6	− 3.0	68	NW	25	11			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.99	761.8	63.0	17.7	33	W	6.0	2.7		2	1	NW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.99	761.6	36.0	2.2	61	NNW			2		8			0	0		
Hernosand			30.02	762.6	39.6	4.2	83	NNW			3		4			0	0		
Stockholm			30.04	762.9	37.8	3.0	35	N			3		2			0	0		
Wisby			30.08	763.9	33.8	1.0	100	NE			3		0			0	0		
Sub-Series.																			
Upsala			30.09	764.2	38.5	3.6	47	NW			4		1	N					Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.39	721.1			55.4	13.0	40	NE			6		2			0	0		The Observatory.
Zurich	28.28	718.4			50.0	10.0	41	E			2		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —3.1mm.; Thermometer, +1°.4 C.; Relative Humidity, —17 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.98	761.0	64.8	18.2	88	NW			2		5						
Constantinople			29.61	752.1	71.6	22.8	44	SW	11	5			5		SW	0	0		
Fao, (Persian Gulf)			30.17	766.3	69.8	21.0		SE			3		5						
Salonica			29.54	750.4	66.9	19.4		SW			6		2						
Valona			29.70	754.4	64.0	17.8		S			3		5						
Varna			29.49	749.0	57.2	14.0		SW			4		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto, and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.96	761.0	36	2.2		Calm	0	0			10s		NE	0.03	0.8		
Chatham, N. B.			30.22	767.6	18	— 7.8	84	Calm	0	0		0	0			0	0		
Charlottetown, P. E. Island			30.21	767.3	22	— 5.6	85	Calm	0	0		0	0			0	0		
Fort Garry, Manitoba			30.19	766.8	28	— 2.2	94	W	2	0.9		0	2ks		W	0	0		
Halifax, N. S.			30.06	763.5	27	— 2.8	87	NE	4	1.8		2ck	0			0	0		
Kingston, Ontario			29.90	759.4	37	2.8	82	Calm	0	0			10s			0	0		
Montreal, Quebec			29.95	760.7	36	2.2	72	SE	10	4.5			Fog			0	0		
Ottawa, Ontario			29.90	759.4	33	0.6	70	E	2	0.9			10s		E	0.07	1.8	Threatening	
Parry Sound, Ontario			29.80	756.9	35	1.7	88	NE	6	2.7			10n		NE	0	0	Threatening	
Port Dover, Ontario			29.72	754.9	37	2.8	90	NE	6	2.7		Haze	Haze	NE		0	0		
Port Stanley, Ontario			29.73	755.1	39	3.9	94	NE	15	6.7			10n		NE	0.01	0.3		
Quebec, Quebec			30.09	764.3	32	0.0	90	E	2	0.9		0	0			0	0		
Saugeen, Ontario			29.77	756.1	36	2.2	80	E	7	3.1			10n			0	0		
Stayner, Ontario			29.74	755.4	43	6.1	96	N	1	0.4			10n			0	0		
Sydney, C. B.			30.14	765.5	25	— 3.9	72	NW	4	1.8		2ck	0	N		0	0		
Toronto, Ontario			29.78	756.4	34	1.1	82	NE	10	4.5			10n			0	0	Light rain	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.90	759.4	35	1.7	70	N	1	0.4			10ks			0.05	1.3		
Alpena, Mich.			29.79	756.7	38	3.3	46	N	6	2.7		1c	0			0	0		
Atlantic City, N. J.			29.69	754.1	38	3.3	100	NE	36	16.1			10n		NE	0.49	12.4	Heavy rain	
Augusta, Ga.			29.92	760.0	52	11.1	35	NW	12	5.4		0	0			0	0		
Baltimore, Md.			29.77	756.4	38	3.3	81	N	2	0.9			10n			0.46	11.7	Light snow	
Barnegat, N. J.			29.70	754.4	37	2.8	100	NE	35	15.6			10n		NE	0.74	18.8	Heavy rain	
Benton, Montana			30.19	766.8	36	2.2	70	SW	1	0.4		0	0			0	0		
Bismarck, Dakota			30.20	767.1	25	-3.9	75	Calm	0	0			10s			0	0		
Boston, Mass.			29.98	761.5	36	2.2	70	E	18	8.0			10s			0	0		
Breckenridge, Minn.			30.16	766.1	32	0.0	89	NW	4	3.6		0	0			0	0		
Buffalo, N. Y.			29.69	754.1	41	5.0	73	E	6	2.7			Haze			0.01	0.3		
Burlington, Vt.			29.91	759.7	38	3.3	72	SW	5	2.2		5k	2s			0	0		
Cairo, Ill.			29.99	761.7	41	5.0	73	W	12	5.4			10ks			0.03	0.8		
Cape Hatteras, N. C.			29.67	753.6	60	15.6	94	SW	12	5.4		0	2s		SW	0.05	1.3		
Cape Henry, Va.			29.68	753.9	49	9.4	93	NW	16	7.2			10s		NW	0.39	9.9		
Cape May, N. J.			29.65	753.1	40	4.4	91	NE	20	8.9			10n			0.70	17.8	Light rain	
Charleston, S. C.			29.87	758.7	58	14.4	34	NW	12	5.4		2c	0	N		0.05	1.3		
Cheyenne, W. T.			30.12	765.0	32	0.0	61	NW	12	5.4		5c	5s	NW		0	0		
Chicago, Ill.			29.80	756.9	38	3.3	81	N	4	1.8			10s			1.03	26.2		
Cincinnati, Ohio			29.82	757.4	41	5.0	82	W	6	2.7		2ck	0	W		0.21	5.3		
Cleveland, Ohio			29.65	753.1	37.2	2.9	95	SW	4	1.8			10n			0.47	11.9	Light rain	
Colorado Springs, Col.			30.13	765.3	31	-0.6	58	NW	1	0.4		0	0			0	0		
Corsicana, Texas			30.23	767.8	42	5.6	65	W	11	4.9		0	0			0	0		
Davenport, Iowa			29.93	760.2	40	4.4	82	N	16	7.2		2k	8ks		W	0.28	7.1		
Denver, Col.			30.21	767.3	34	1.1	52	SW	2	0.9		0	2ks			0	0		
Detroit, Mich.			29.69	754.1	38	3.3	85	N	8	3.6			10s			0	0		
Dodge City, Kansas			29.96	761.0	40	4.4	73	N	4	1.8		2k	0			0	0		
Dubuque, Iowa			29.95	760.7	40	4.4	73	NE	8	3.6		0	0			0.07	1.8		
Duluth, Minn.			30.05	763.3	39	3.9	56	NW	12	5.4		Haze	9ks			0	0		
Eastport, Me.			30.16	766.1	29	-1.7	90	NE	16	7.2			10s		NE	0	0		
Erie, Penn.			29.66	753.4	43	6.1	75	SE	6	2.7			10s			0	0	Threatening	
Escanaba, Mich.			29.92	760.0	32	0.0	79	N	14	6.3		5ck	0	NE		0	0		
Fort Gibson, I. T.			30.17	766.3	38	3.3	71	N	4	1.8		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.28	769.1	29	-1.7	78	N	6	2.7		0	0			0	0		
Galveston, Texas			30.24	768.1	53	11.7	59	NE	13	5.8		0	0			0	0		
Grand Haven, Mich.			29.79	756.7	41	5.0	48	Calm	0	0		0	0			0	0		
Indianapolis, Ind.			29.80	756.9	40	4.4	82	NW	4	1.8		0	Haze			0.19	4.8		
Indianola, Texas			30.20	769.4	53	11.7	60	NE	12	5.4		0	0			0	0		
Jacksonville, Fla.			29.94	760.5	63	17.2	52	NW	11	4.9		9c	0	NW		0.32	8.1		
Keokuk, Iowa			29.93	759.4	40	4.4	73	NW	12	5.4		5ck	5ks	S		0	0		
Key West, Fla.			30.00	762.0	76.9	24.9	82	SW	8	3.6		5c	Sur'e	SW		0	0		
Kittyhawk, N. C.			29.66	753.4	58	14.4	97	W	12	5.4			Fog			0	0	Fog	
Knoxville, Tenn.			29.86	758.4	43	6.1	50	S	12	5.4			10ks			0	0		
La Crosse, Wis.			30.01	762.2	35	1.7	70	N	8	3.6		0	0			0.02	0.5		
Leavenworth, Kan.			30.20	767.1	36	2.2	80	NW	6	2.7		0	0			0.05	1.3		
Lexington, Ky.			29.83	757.7	40	4.4	64	SW	4	1.8		8c	2s	SW		0.06	1.6		
Long Branch, N. J.			29.75	755.6	35	1.7	100	NE	38	17.0			10n			0.79	20.1	Light rain, sleet	
Louisville, Ky.			29.83	757.7	44	6.7	76	SW	5	2.2			10ks		W	0.05	1.3		
Lynchburg, Va.			29.74	755.4	50	10.0	51	W	3	1.3		0	0			0.59	15.0		
Malone, N. Y.																			
Marquette, Mich.			29.99	761.7	32	0.0	69	NW	16	7.2		2c	0	N		0	0		
Memphis, Tenn.			30.06	763.5	46	7.8	61	NW	8	3.6		2k	0	NW		0	0		
Milwaukee, Wisconsin			29.88	758.9	37	2.8	90	N	12	5.4		2cs	0	SW		0.22	5.6		
Mobile, Ala.			30.13	765.3	50	10.0	45	N	5	2.2		2c	0	W		0	0		
Montgomery, Ala.			30.06	763.5	47.5	8.6	74	W	10	4.5		0	0			0	0		
Morgantown, W. Virginia			29.72	75.9	42	5.6	79	SW	14	6.3			10s			0.68	17.3		
Mt. Washington, N. H.			29.92	760.0	23	-5.0	86	SE	16	7.2		2c	8s	NW		0	0		
Nashville, Tenn.			29.93	760.2	43	6.1	75	W	9	4.0		10k	0	W		0.01	0.3		
New Haven, Conn.			29.86	758.4	32	0.0	89	NE	14	6.3			10n			0.32	8.1	Heavy snow	
New London, Conn.			29.88	758.9	33.5	0.8	98	NE	16	7.2			10n			0.21	5.3	Light snow	
New Orleans, La.			30.17	766.3	54	12.2	43	NW	12	5.4		2cs	0	W		0	0		
Newport, R. I.																			
New York, N. Y.			29.78	756.4	33	0.6	89	E	28	12.5			10n			0.20	5.1	Heavy snow	
Norfolk, Va.			29.69	754.1	49	9.4	100	NW	12	5.4			10s			0.25	6.3		
North Platte, Neb.			29.90	759.4	37	2.8	81	Calm	0	0			10ks		N	0	0		
Omaha, Neb.			30.13	765.3	35	1.7	80	NW	8	3.6		0	8s			0.05	1.3		
Oswego, N. Y.			29.85	758.2	39	3.9	56	SSE	14	6.3			10s			0.03	0.8	Threatening	
Peck's Beach			29.66	753.4	38	3.3	100	E	28	12.5			10n		NE	1.14	28.9	Light rain	
Pembina, D. T.			30.19	*766.8	29	-1.7	83	NW	4	1.8		2c	0			0	0		
Philadelphia, Penn.			29.73	755.1	34	1.1	100	E	8	3.6			10n		E	1.79	45.5	Light rain	
Pike's Peak, C. T.			29.90	759.4	1	-17.2	100	N	20	8.9		0	0			0.05	1.3		
Pittsburgh, Penn.			29.69	754.1	39	3.9	81	SW	8	3.6			10n			0.25	6.3	Light rain	
Port Huron, Mich.			29.71	754.6	36	2.2	100	N	16	7.2			10s			0	0	Threatening	
Portland, Maine			30.07	763.8	34	1.1	71	NE	6	2.7			10s			0	0		
Portland, Or.			30.14	765.5	49	9.4	78	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			30.02	762.5	73.5	23.1	80	W	6	2.7			10ks			0	0		
Rochester, N. Y.			29.77	756.1	35	1.7	90	SE	20	8.9			10n			0.09	1.8	Light snow	
Salt Lake City, Utah			30.20	767.1	38	3.3	54	N	4	1.8		0	0			0	0		
Sandy Hook, N. J.			29.74	755.4	34	1.1	100	NE	35	15.6			10n		NE	0.41	10.4	Hail	
San Diego, Cal.			29.97	761.2	53	11.7	86	NE	4	1.8			10s			0	0		
San Francisco, Cal.			29.91	759.7	52	11.1	79	W	20	8.9		0	0			0	0		
Santa Fe, N. M.			29.87	758.7	35	1.7	45	S	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			29.92	760.0	58	14.4	30	W	14	6.3		0	0			0.11	2.8		
Shreveport, La.			30.22	767.6	46	7.8	69	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.93	760.2	33	0.6	89	NE	8	3.6			10n			0.05	1.3	Light snow	
St. Louis, Mo.			29.96	761.0	39	3.9	63	NW	16	7.2			10s			0	0		
St. Marks, Fla.			30.03	762.7	55	12.8	50	N	8	3.6		0	0			0.58	14.7		
St. Paul, Minn.			30.01	762.2	36	2.2	61	NW	2	0.8			10s			0	0		
St. Paul's Island, Alaska			30.28	769.1	26	-3.3	75	NNW	22	9.8		0	8k			0	0		
Squan Beach, N. J.			29.75	755.6	36	2.2	100	NE	38	17.0			10n		NE	1.10	27.9	Heavy rain	
Toledo, Ohio			29.72	754.9	41	5.0	83	W	7	3.1			10n			0.01	0.3	Light rain	
Tybee Island, Ga.			29.93	760.2	57	13.9	38	NW	23	10.3		0	0			0.10	2.5		
Vicksburg, Miss.			30.20	767.1	40	9.4	64	NW	10	4.5		0	0			0	0		
Virginia City, Mon.			29.91	759.7	33	0.6	69	Calm	0	0		0	0			0	0		
Washington, D. C.			29.77	756.1	34.5	1.4	100	N	8	3.6			10s		NE	0.70	17.8		
Wilmington, N. C.			29.77	756.1	59	15.0	59	NW	19	8.5		0	0			0.09	2.3		
Wood's Hole, Mass.			29.90	759.4	36	2.2	90	E	17	7.6			10n			0.09	2.3	Light snow	
Wytheville, Va.			29.56	750.8	39	3.9	72	W	4	1.8		5k	0	W		0.06	1.5		
Yankton, D. T.			30.22	767.6	34	1.1	79	NW	13	5.8			2s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	80	26.7		N	6	2.7		2c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.97	761.2	78	25.6		E				5ks	5ks	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	79	26.1	82	S	24	10.7		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	76	24.4		Calm	0	0		2c	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.25	768.3			76	24.4		E	10	4.5		1ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	75	23.9	72	Calm	0	0		0	2s			0	0		Robert Mason.
St. Georges, Bermudas			29.88	758.9	70	21.1	87	SW	16.0	7.2		10ck	0	NW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	66	18.9	79	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			30.00	762.0	59.5	15.3	82	Calm	0	0		0	0			0.10	2.5		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.08	764.0	14.0	−10.0	100	NE	4	1.8			10n			0	0	Snowing	J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	66	18.9	93	S	2.0	0.9		8c	0	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.78	756.4	33	0.6	64	NE				0	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.08	763.9	80.1	26.7	60	SW			1	0	0			0	0		Leon M. Acuña.
Elyria, Ohio.			29.66	753.4	33	0.6	69	NW	8	3.6			10n			0	0	Snow & rain	H. M. Redington.
Indianola, Iowa	29.18	741.1			36	2.2		NW				2ks	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 14, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.10	764.5	68.2	20.1		SSE			3		1			0	0		Charnot.
Algiers			30.11	764.7	65.1	18.4	67	W			4		1			0	0		Peter.
La Calle																			Kuntz.
Tunis			29.93	760.1	64.4	18.0	65	NW			3		7			0.158	4.0	Rain	Jacques.
Sfax																			Chauvey.
Saïda			30.06	763.4	63.0	17.2		NW			2		1			0	0		Grosjean.
Tebessa			30.00	762.0	62.1	16.7		WNW			2		7			0	0		Colin.
Geriville			30.03	762.8	59.5	15.3		NNW			2		2			0	0		Bernadach.
Laghouat			30.04	763.0	65.3	18.5	34	NW			3		1			0	0		Poinsignon.
Biskra			30.02	762.5	75.6	24.2		NW			5		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.21	767.4	43.5	6.4	36	NE			4		8			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.27	768.9	36.5	2.5	61	NNW			3		9			0	0		I. R. Observatory.
Eperies			30.20	767.0	37.6	3.1	53	NW			2		9		S	0.040	1.03		Julius Mikolik.
Gratz			30.20	767.1	42.6	5.9	51	SE			5		8			0	0		Andreas Rospini.
Hermannstadt			30.11	764.6	38.8	3.8	80	NW			3		10			0.187	4.75		Prof. Reissenberger.
Kremsmünster			30.28	769.1	37.0	3.3	53	S			1					0	0		Prof. C. Wagner.
Lemberg			30.15	765.8	37.2	2.9	52	NW			4		8			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.19	766.8	43.5	6.4	45	N			4		6			0	0		Habsuda Daniel.
Pola			30.13	765.3	46.0	7.6	28	ENE			5		1k			0	0		I. R. Hydrographic Office
Szegedin			30.15	765.8	42.6	5.9	35	NE			2		10			0	0		Karl Stancel.
Trieste			30.17	766.3	45.7	7.6	33	ENE			2		0			0	0		Prof. V. Farolfi.
Vienna			30.27	768.9	39.9	4.4	36	NE			1		4			0.012	0.3		I. R. Central Institute.

Note.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	30.11	764.7			48.4	9.1	42	E			1		6		N	0	0		Royal Observatory.

Note.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.33	770.4	45.7	7.6		NW	13	5.8			9			0	0		William Boswell.
Annanhill																			
Ardrossan					51	10.6		SW			2		0					Light fog	William McNeil.
Armagh Observatory			30.33	770.4	57.3	14.1		SE	9	4.0			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col																			
Bidston, Liverpool Obs			30.32	770.1	51.8	11.0		W			2		0					Haze	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.30	769.6	57.0	13.9		SSE			1		0						J. Dreyer, for L'd Rosse.
Bradford			30.26	768.6	54.9	12.7		NW			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.34	770.6	49.0	9.4		WSW			1		0						H. Todd.
Cape Town, (Cape Colony)			30.08	764.0	70.8	21.6		NE			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs	30.10	764.5			74.6	23.7	47	SSW	10	4.5			1						The Staff, for E. J. Stone
Cardington			30.36	771.1	52.0	11.1		NE					2						John McLaren.
Carlisle			30.31	769.9	57.1	13.9		W					0			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.30	769.6	50.2	10.1		NE			1		2						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.90	759.4	87.2	30.7		Calm			0		8						Sgt. W. F. Hopkins
Dartmoor			30.35	770.9	47.0	8.3		E			1		0						R. E. Power.
Donaghadee			30.32	770.1	52	11.1		S			2		0						J. Mac Gowan, Jr.
Dover			30.34	770.6	47	8.3		ENE			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.31	769.9	57.3	14.1		ENE	2.0	0.9			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.30	769.6	49.9	9.9		ESE	23	10.3			1						The Staff.
Fort Napier, (Natal)			29.90	759.4	85.4	29.7		NW			4		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's Col ege			30.22	767.6	63	17.2		E			4		0						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.14	765.5	68.5	20.3		SW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.28	769.1	60.3	15.7		NE			1		3						James Gray.
Great Yarmouth			30.34	770.6	45	7.2		NE			2		3						G. T. Watson.
Greenwich Royal Obs			30.33	770.4	52.8	11.6		E			1		2						The Staff, for G. B. Airy.
Guernsey			30.31	769.9	50.1	10.6		NE			2		0						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs			30.25	768.3	56.4	13.6		ENE					0					Haze	F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.67	753.6	32.3	0.2		NE			5		9						Corp'l J. Y. Thompson.
Helston			30.25	768.3	55	12.8		E			4		4						Dr. W. B. Moyle.
Holyhead			30.34	770.6	49	9.4		NNW			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.34	770.6	47.7	8.7		WNW	2	0.9								Haze	The Staff.
Kingstown			30.36	771.1	47	8.3		ESE			2		2						George Mitchell.
Lampeter																			
Leicester Museum			30.35	770.9	51.5	10.8		W			1		0						William J. Harrison
Llandudno			30.32	770.1				E			1		0						Dr. James Nicol.
Malta, (Mediterranean)			29.89	759.2	60.0	15.6		SE			1		10						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.34	770.6	54	12.2		Calm			0		10					Haze	William D. Penny.
Nassau, (Bahamas)			30.02	762.5	77.4	25.2		E			1		6						Surg.-Maj. J. Jameson.
North Shields			30.34	770.6	49	9.4		NE			1		5						John Wm. Irvine.
Nottingham			30.33	770.4	57.0	13.9		NW			1	2c	0	NW					E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.32	770.1	52	11.1		SSW			2		10					Fog	Rev. Stephen Whitty.
Oxford, Radcliffe Obs			30.31	769.9	50	10.0		Calm			0		0						J. Lucas, for R. Main.
Plymouth			30.30	769.6	53.0	11.7		E			3		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.28	769.1	52	11.1		S·E			4		5						W. Kennedy.
Saint Ann's Head			30.31	769.9	50	10.0		SE			1		2					Haze	John C. Walker.
Saint Helier, (Jersey)			30.28	769.1	54.5	12.5		E			4		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.38	771.6	48.5	9.2		N	6	2.7			10					Haze	Rev. C. Clouston.
Scarborough			30.32	770.1	47.0	8.3		NNE			1		7						F. Shaw.
Scutari, (Turkey)			30.06	763.5	52.6	11.4		NE			3		5						Sergt. W. H. Lyne.
Sheffield			30.29	769.4	52.1	11.2		NE			1		5			0	0	Haze	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.31	769.9	57.0	13.9		W			2		0			0	0	Haze	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.32	770.1	49.2	9.6		NNE			1		4						Rev. C. J. Steward.
Stonyhurst Observatory			30.30	769.6	55.7	13.2		SW			1							Haze	The Staff.
Stornoway, Lews C. (Hebr)			30.32	770.1	51	10.6		Calm			0		10						John Smith.
Strathfield Turgiss			30.33	770.4	56.3	13.7		NE			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.36	771.1	54.9	12.7		NNE			1		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.29	769.4	50	10.0		NNE			2		10						William Lawrence.
Taunton College																			
Thurso			30.34	770.6	48	8.9		NW			2		8						John Trotter.
Truro, Royal Institution			30.31	769.9	57	13.9		E			4		2						W Newcombe.
Valencia Observatory			30.23	767.8	52.3	11.3		ESE	20	8.9			3						The Staff.
Wick																			
Wisbeach																			
Worthing			30.34	770.6	49.2	9.6		SSE			2		0						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.08	763.9	40.6	4.8	76	W			4		10						
Fanöe			30.17	766.2	41.9	5.5	89	W			4		10						
Godthaab, (Greenland)			29.88	759.0	28.6	− 1.9		NE			4		10					Snow	
Stykkisholm, (Iceland)			30.24	768.2	42.1	5.6	85	Calm			0		8						
Thorshavn, (Faröe)			30.31	769.9	47.5	8.6	76	WSW			2		10						
Vestervig			30.06	763.5	45.7	7.6	80	WNW			6		4						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.63	752 0	56.8	13.8	80						5k						Normal School.
Alençon																			Normal School.
Amiens			30.26	768.5	57.6	14.2	76	NE			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.30	769 7	49.1	9.5	23	ENE			3		0			0	0		Normal School.
Besançon			30.17	766 3	52.2	11.2	55	NE			6		0			0	0		Normal School.
Bourges			30.18	766.6	52.9	11.6	41	NE			1		1		N	0	0		Normal School.
Brest			30.18	766.5	63.1	17.3	53	SW			1		0			0	0		Naval Observatory.
Caen			30.29	769.4	51.6	10.9	52	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.25	768.4	56.3	13.5		N			1		0			0	0		Normal School.
Chaumont			30.28	769.2	50.2	10.1		N			6		0			0	0		Normal School.
Le Mans			30.34	770.5	51.4	10.8	33	E			3		0			0	0		Normal School.
Mirecourt			30.17	766.3	47.8	8.8	40	NNE			6		2		S	0	0		Normal School.
Orleans			30.28	769 0	50.5	10.3		NNE			2		0			0	0		Normal School.
Paris			30.13	765.3	54.5	12.5	30	NE			2		0			0	0		National Observatory.
Parthenay			30.20	767.0	61.5	16.4	35	NE			4		0			0	0		Normal School.
La Roche sur Yon			30.29	769.1	56.8	13.8	42	N			2		0			0	0		Normal School.
Rouen			30.24	768 2	56.8	13.8	45	NE			2		1		E	0	0		Normal School.
Saint Lo			30.15	765.8	54.1	12.3	67	NNE			6		0			0	0		Normal School.
Villefranche																			Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.84	630.9			47.3	8.5	25	NNE	9.4	4.2			0			0	0		—. Falguère.
Montsouris (near Paris)			30.22	767.6	51.1	10.6	19	E	7.2	3.2			0			0	0	Haze	Marié Davy.
Perpignan	29.94	760.4			61.0	16.1	41	WNW	11.2	5.0			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.26	768.7	53.6	12.0	17	NNE			2		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.22	767.6	55.0	12.8	26	ENE			2		0			0	0		C. Marquet.
Versailles, (near Paris)			30.27	768.8	52.2	11.2	19	E			3		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.07	763.6	55.4	13.0	80	N	10.5	4.7			Fog			0	0	Fog	H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.19	766.9	41.5	5.3	49	NE			2		2			0	0		Prof. Hoh.
Berlin			30.31	769.9	45.5	7.5	32	W			4		7			0	0		Prof. Arndt.
Breslau			30.32	77 .1	38.8	3.8	41	NW			3		6			0	0		Dr. P. Neugebauer.
Carlsruhe			30.24	768 1	48.0	8.9	32	N			2		8			0	0		A. Senz.
Cassel			30.23	767.8	47.3	8.5	57	E			4		4			0	0		Dr. H. Möhl.
Cologne			30.29	769.3	45.3	7.4	62	NE			3		3			0	0		Dr. Garthe.
Emden			30.33	770.3	46.2	7.9	65	WNW			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.39	771.8	47.3	8.5	31	ESE			2		4			0	0		Physical Society.
Friedrichshafen			30.18	766.5	46.4	8.0	22	NE					1			0	0		M. Wilhelm.
Hamburg			30.28	769 1	46.0	7.8	49	WSW			5		5			0	0		W. Reinert.
Kiel			30.23	767.7	47.1	8.4	92	W			4		10			0	0		Prof. G. Karsten.
Königsberg			30.08	763.9	36.7	2.6	81	W			6		6			0	0		Prof. E. Luther.
Köslin			30.32	770.2	41.0	5.0		W			4		8			0	0		Dr. T gert.
Leipsic			30.33	770.4	42.6	5.9	40	WSW			2		3			0	0		Prof. Bruhns.
Münster			30.29	769.3	47.8	8.8	54	W			2		10			0	0		Prof. E. Heis.
Posen			30.26	768.7	44.6	7.0	48	W			4		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.23	767.8	49.1	9.5	25	NE					4			0	0		Hartwig and Tülk.
Stuttgart			30.22	767.6	47.7	8.7	38	E					4			0	0		Mr. Würth.
Thorn			30.17	766.2	43.9	6.6	38	W			6		5			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.20	767.1	49.3	9.6	29	N			6		1			0	0		Prof. Flesch.
Wustrow			30.20	767.1	43.0	6.1	66	W			2		6			0	0		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.17	766.2	49.5	9.7	58	E	1.8	0.8			9	N		0	0		
Mondovi			30.07	763.8	45.1	7.3	58	NW			4		10	NW		0	0		
Genoa			30.07	763.7	56.8	13.8	28	NW	3.8	1.7			2	N		0	0		
Pavia			30.15	765.9	54.0	10.0	41	NE			4		4	NE		0	0		
Verona			30.14	765.5	54.7	12.6	48	E			4		10			0	0		
Padua			30.15	765.7	46.9	8.3	37	E	14.3	6.4			1	E		0	0		
Parma																			
Bologna			30.15	765.8	51.4	10.8	36	ESE			6		4	S		0	0		
Livorno			30.04	763.0	51.1	10.6	39	ENE	21.0	9.4			1			0	0		
Urbino			30.10	764.6	38.1	3.4	68	NE			6		7			0	0		
Ancona			30.05	763.3	48.2	9.0	53	ENE			4		3			0	0		
Siena			30.03	762.7	44.6	7.0	36	ENE	20.6	9.2			2	E		0	0		
Rome			29.93	760.1	51.6	10.9	59	ENE	6.3	2.8			9	SE		0.079	2.0		
Naples, O. U.			29.92	759 9	47.5	8.6	70	NE			4		10			0.138	3.5		
Lecce			30.01	762.2	55.6	13.1	57	NNE	16.1	7.2			5			0	0		
Cosenza			29.91	759.7	62 6	17.0	66	SSW			2		10			0	0		
Catania, (Sicily)			29.95	760.6	60.4	15.8	73	SW			2		10	W		0	0		
Riposto																			
Palermo			29.80	756.9	60.4	15.8	56	WSW			4		10			0	0		
Sub-Series.																			
Naples, S. R.	29.38	746.3			45.0	7.2	80	NE			1		10k		NW	0.534	13.3	Rain	Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.36	771.1	48.2	9.0		NE			3								
Groningen			30.24	768.0	45.3	7.4		NW			3								
Helder			30.30	769.7	43.7	6.5		W			2								
Utrecht			30.28	769.0	51.6	10.9		W			1		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			30.14	765.6	43.5	6.4	76	N	16.1	7.2			10			0	0	Rain	
Christiania			29.93	760.2	48.6	9.2	48		6.4	0.2			8			0	0		
Tromsö			29.67	753.7	28.8	− 1.8	90	NE			6		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.83	757.7			62.1	16.7	70	SE	6.3	2.8			7						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			30.18	766.6	38.3	3.5	57	WNW	11	5			9						Astronomical Obs.
Wilna			30.01	762.1	37.0	2.8	70	NW	8	3.5			10					Snow	Astronomical Obs.
Dorpat			29.87	758.8	35.2	1.8	60	W	9	4			6						Physical Cabinet.
St. Petersburg			29.77	756.2	31.5	− 0.3	68	WNW	7	3			6						Central Physical Obs.
Kieff			30.05	763.2	32.4	0.2	67	NNW	11	5			6					Light snow	Physical Cabinet.
Nikolaiev			30.05	763.2	41.4	5.2	54	NNW	20	9			6						
Kertch			29.95	760.7	43.7	6.5	74	NW	25	11			10						Lagorio.
Moscow			29.83	757.6	30.4	− 0.9	59	WNW	8	3.5			10						Meteorological Obs.
Lugan			29.49	749.1	39.0	3.9	87	WNW	17	7.5			10					Rain & snow	Meteorological Obs.
Archangel			29.69	754.2	26.6	− 3.0	83	Calm	0	0			8						Ogorodnikof.
Tiflis			29.92	759.9	74.0	23.4	25	NNW	20	9			3						Physical Obs.
Astrakhan			29.85	758.3	59.0	15.0	59	SSW	4	2			8						Sebastianof.
Kasan			29.72	754.9	36.3	2.4	65	W	4	2			5						Physical Cabinet.
Orenburg			29.75	755.6	58.3	14.6	96	S	8	3.5			9						Tschernischef.
Ekaterinburg			29.74	755.5	33.4	0.8	89	S	8	3.5			10					Snow	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.17	766.3	36.9	2.7	51	SW	4	2			1						Meteorological Obs.
Yeniseisk			29.63	752.7	50.4	10.2	63	SE	13	6			8						arks.
Irkutsk																			Usolzef.
Oorga			30.19	766.7	37.4	3.0	63	Calm	0	0			0						Messin.
Peking, (China)			30.09	764.3	53.1	11.7	44	S	8	3.5			2						Physical Observatory
Nertchinsk			30.20	767.0	26.2	− 3.2	45	Calm	0	0			6						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuoplo																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.02	762.5	68.0	20.0	31	W	6.0	2.7		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.67	753.5	42.4	5.8	41	NNW			3		6			0	0		
Hernosand			29.70	754.4	41.7	5.4	38	N			3		6			0	0		
Stockholm			29.77	756.2	45.0	7.2	61	W			5		8			0	0		
Wisby			29.99	761.6	37.4	3.0	83	WNW			1		4			0	0		
Sub-Series.																			
Upsala			29.79	756.6	46.6	8.1	55	WNW			4		5		NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.68	728.5			45.9	7.7	47	NW			2		0			0	0		The Observatory.
Zurich	28.47	723.1			48.7	9.3	33	E			4		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.3mm.; Thermometer, —4°.0 C.; Relative Humidity, —10 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.98	761.5	67.8	19.9	87	NE			2		5						
Constantinople			30.07	763.8	48.2	9.0	69	NE	28.0	12.5			9		NE	0	0		
Fao, (Persian Gulf)			30.20	767.0	78.8	26.0		NW			1		0						
Salonica			29.92	759.9	69.6	20.9		NW			1		2						
Valona			29.91	759.8	54.9	12.7		SW			2		10						
Varna			30.16	766.0	44.6	7.0		NE			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.92	760.0	36	2.2		Calm	0	0			10s			0	0		
Chatham, N. B.			29.91	759.7	27	— 2.8	78	N	12	5.4		5c	0	N		0	0		
Charlottetown, P. E. Island			29.84	757.9	27	— 2.8	86	NE	11	4.9		2ck	0	NE		0	0		
Fort Garry, Manitoba			29.82	757.4	33	0.6	96	SW	3	1.3		2k	2ks	W	W	0	0		
Halifax, N. S.			29.59	751.6	31	— 0.6	84	E	15	6.7			8n			0	0		
Kingston, Ontario			29.90	759.4	38	3.3	73	Calm	0	0			10s			0	0		
Montreal, Quebec			29.85	758.2	34	1.1	71	E	7	3.1		5c	2ks	NE		0	0		
Ottawa, Ontario			29.85	758.2	37	2.8	72	Calm	0	0		10k	0	NW		0	0		
Parry Sound, Ontario			29.90	759.4	32	0.0	99	NE	1	0.4			Fog			0	0		
Port Dover, Ontario			29.96	761.0	36	2.2	90	S	4	1.8		10k	0			0	0		
Port Stanley, Ontario			29.95	760.7	37	2.8	93	W	6	2.7			10n		NW	0	0		
Quebec, Quebec			29.86	758.4	31	— 0.6	79	E	4	1.8		0	0			0	0		
Saugeen, Ontario			29.93	760.2	32	0.0	85	SW	8	3.6		10cs	0			0	0		
Stayner, Ontario			29.88	758.9	43	6.1	92	Calm	0	0			10n		W	0	0		
Sydney, C. B.			29.86	758.4	27	— 2.8	79	NE	1	0.4		5c	0			0	0		
Toronto, Ontario			29.92	760.0	37	2.8	87	Calm	0	0			Fog			0	0	Fog	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.80	756.9	32	0.0	79	N	2	0.9		2c	2k	W		1.21	30.7		
Alpena, Mich.			29.89	759.2	34	1.1	61	NW	12	5.4		0	Haze			0	0		
Atlantic City, N. J.			29.83	757.7	36	2.2	80	NW	12	5.4		0	8s			0.43	10.9		
Augusta, Ga.			29.92	760.0	45	7.2	61	NW	2	0.9		0	0			0	0		
Baltimore, Md.			29.91	759.7	41	5.0	65	NW	10	4.5		1c	0			0.06	1.5		
Barnegat, N. J.			29.80	756.9	35	1.7	69	W	8	3.6		0	8s		W	0.53	13.5		
Benton, Montana			30.08	764.0	40	4.4	82	SW	4	1.8		0	0			0	0		
Bismarck, Dakota			29.80	756.9	35	1.7	70	SW	1	0.4		5c	0			0	0		
Boston, Mass.			29.63	752.6	30	—1.1	100	N	16	7.2			10n			1.26	32.0	Light snow.	
Breckenridge, Minn.			29.96	761.0	36	2.2	80	SW	10	4.5		5k	0	NW		0	0		
Buffalo, N. Y.			29.93	760.2	32.5	0.3	89	SW	6	2.7			10n			0.05	1.3	Light snow.	
Burlington, Vt.			29.80	756.9	30	—1.1	67	N	4	1.8		2c	0			0	0		
Cairo, Ill.			30.09	764.3	46	7.8	76	SW	2	0.9			10s			0	0	Threatening	
Cape Hatteras, N. C.			29.92	760.0	50	10.0	64	N	18	8.0			8ks		NW	0	0		
Cape Henry, Va.			29.91	759.7	50	10.0	65	NW	32	14.3		2k	0	NW		0.11	2.8		
Cape May, N. J.			29.85	758.2	38	3.3	71	N	24	10.7		5k	0	N		0.15	3.8		
Charleston, S. C.			30.10	764.5	50	10.0	48	NW	8	3.6		5c	Sm'e	W		0	0		
Cheyenne, W. T.			30.06	763.5	33	0.6	61	W	12	5.4		0	2s			0	0		
Chicago, Ill.			30.00	762.0	39	3.9	73	N	2	0.9			10s			0	0		
Cincinnati, Ohio			30.03	762.7	44	6.7	69	SW	4	1.8			Fog			0.01	0.3		
Cleveland, Ohio			29.97	761.2	37.3	2.9	65	NW	5	2.2			10ks		NW	0.14	3.5		
Colorado Springs, Col.			30.07	763.8	26	—3.3	63	NW	8	3.6		0	0			0	0		
Corsicana, Texas			30.21	767.1	43	6.1	75	N	3	1.3		0	0			0	0		
Davenport, Iowa			30.07	763.8	42	5.6	67	NW	4	1.8			10s			0	0		
Denver, Col.			30.14	765.5	33	0.6	70	S	7	3.1		0	0			0	0		
Detroit, Mich.			29.94	760.5	37	2.8	71	NW	3	1.3		0	Haze			0	0		
Dodge City, Kansas			29.92	760.0	38	3.3	54	N	1	0.4		0	0			0	0		
Dubuque, Iowa			30.08	764.0	42	5.6	66	N	2	0.9		0	0			0	0		
Duluth, Minn.			29.88	758.9	39	3.9	63	SW	8	3.6		Haze	8s			0	0		
Eastport, Me.			29.71	754.6	29	—1.7	79	NE	21	9.4		10c	0			0	0		
Erie, Penn.			29.93	760.2	38	3.3	90	S	8	3.6			10s			0.11	2.8		
Escanaba, Mich.			29.92	760.0	35	1.7	52	SW	4	1.8		2c	2s			0	0		
Fort Gibson, I. T.			30.14	765.5	46	7.8	76	Calm	0	0		8k	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.02	762.5	33	0.6	75	SE	3	1.3		0	0			0	0		
Galveston, Texas			30.21	767.3	58	14.4	62	N	8	3.6		0	0			0	0		
Grand Haven, Mich.			30.00	762.0	39	3.9	47	Calm	0	0		0	0			0	0		
Indianapolis, Ind.			30.00	762.0	46	7.8	62	W	3	1.3		5ck	Sm'e	W		0	0		
Indianola, Texas			30.25	768.3	59	15.0	43	NW	8	3.6		0	0			0	0		
Jacksonville, Fla.			30.11	764.8	54	12.2	43	NW	8	3.6			9s			0	0		
Keokuk, Iowa			30.07	763.8	39	3.9	63	NW	4	1.8		5c	0	W		0	0		
Key West, Fla.			30.04	763.0	71	21.7	58	N	20	8.9			10ks			0	0		
Kittyhawk, N. C.			29.94	760.5	45	7.2	68	N	36	16.1		2k	0	N		0	0		
Knoxville, Tenn.			30.10	764.5	39	3.9	81	Calm	0	0		0	Haze			0.04	1.0		
La Crosse, Wis.			30.06	763.5	36	2.2	70	S	5	2.2		0	0			0	0		
Leavenworth, Kan.			30.14	765.5	41	5.0	75	NW	1	0.4		0	0			0	0		
Lexington, Ky.			30.05	763.3	45	7.2	76	W	4	1.8		0	0			0	0		
Long Branch, N. J.			29.80	756.9	36	2.2	80	NW	17	7.6		0	2s		NW	1.03	26.2		
Louisville, Ky.			30.04	763.0	44	6.7	76	SE	4	1.8		Sm'e	0			0.03	0.8		
Lynchburg, Va.			29.94	760.5	52	11.1	46	NW	8	3.6		10k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.87	758.7	38	3.3	54	W	12	5.4			10s			0	0		
Memphis, Tenn.			30.13	765.3	49	9.4	71	W	6	2.7			10s			0	0		
Milwaukee, Wisconsin			30.04	763.0	36	2.2	70	NW	3	1.3			Fog			0	0	Fog	
Mobile, Ala.			30.16	766.1	52	11.1	72	Calm	0	0		5c	Haze			0	0		
Montgomery, Ala.			30.16	766.1	48.5	9.2	78	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			29.98	761.5	43	6.1	79	SW	8	3.6			10s			0.26	6.6		
Mt. Washington, N. H.			29.70	754.4	14	—10.0	82	NE	18	8.0		8s	0	N		0	0		
Nashville, Tenn.			30.12	765.0	40	4.4	82	Calm	0	0		0	Fog			0	0		
New Haven, Conn.			29.75	755.6	35	1.7	70	N	18	8.0		0	8s			0.60	15.2	Clearing	
New London, Conn.			29.68	753.9	35	1.7	70	NW	16	7.2		0	5s		N	0.57	14.5		
New Orleans, La.			30.16	766.1	56.5	13.6	60	Calm	0	0		2cs	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.82	757.4	34	1.1	79	NW	6	2.7		8c	0	W		1.04	26.4		
Norfolk, Va.			29.95	760.7	44	6.7	67	N	16	7.2		10k	0	N		0.02	0.5		
North Platte, Neb.			29.84	757.9	32	0.0	79	Calm	0	0		2cs	0			0	0		
Omaha, Neb.			30.15	765.8	38	3.3	81	W	3	1.3		0	0			0	0		
Oswego, N. Y.			29.90	754.9	35.3	1.8	90	WNW	5	2.2			10s			0.08	2.0	Threatening	
Peck's Beach			29.84	757.9	38	3.3	71	NW	24	10.7			3ks			0.40	10.2		
Pembina, D. T.			29.78	756.4	37	2.8	90	NW	4	1.8		2c	2s			0	0		
Philadelphia, Penn.			29.87	758.7	37	2.8	54	NW	8	3.6		8k	2s	N		0.41	10.4		
Pike's Peak, C. T.			29.92	760.0	8	—13.3	100	N	28	12.5		0	0			0.06	1.5		
Pittsburgh, Penn.			29.95	760.7	39	3.9	83	NW	8	3.6			10s			0.41	10.4		
Port Huron, Mich.			29.95	760.7	33	0.6	89	W	5	2.2		0	0			0	0		
Portland, Maine			29.72	754.6	30	—1.1	89	NE	19	8.5			10n			0.24	6.1	Heavy snow	
Portland, Or.			30.12	765.0	48	8.9	78	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			30.10	764.5	61.6	16.4	55	NE	12	5.4			10ks			0.12	3.0		
Rochester, N. Y.			29.89	759.2	37	2.8	80	W	8	3.6			10s			0.11	2.8		
Salt Lake City, Utah			30.16	766.1	40	4.4	40	E	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.79	756.7	35	1.7	70	NW	15	6.7		5c	2s	W	NW	0.75	19.1		
San Diego, Cal.			30.08	764.0	53	11.7	86	N	4	1.8			10s			0	0		
San Francisco, Cal.			30.10	764.5	51	10.6	86	SW	6	2.7			10s			0	0		
Santa Fe, N. M.			29.83	757.7	40	4.4	31	E	7	3.1		0	0			0	0		
Savannah, Georgia			30.12	765.0	53	11.7	48	NW	5	2.2		8c	0			0	0		
Shreveport, La.			30.22	767.6	49	9.4	74	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.73	755.1	35	1.7	69	N	12	5.4		5k	5s	W		1.47	37.3	Clearing	
St. Louis, Mo.			30.08	764.0	47	8.3	48	N	8	3.6		5k	0	N		0	0		
St. Marks, Fla.			30.14	765.5	49	9.4	85	NW	1	0.4		10c	Haze			0	0		
St. Paul, Minn.			29.96	761.0	34	1.1	79	SW	8	3.6		5c	0	W		0	0		
St. Paul's Island, Alaska			30.57	776.5	20	—6.7	55	NNW	1	0.4		1c	10k			0.01	0.3		
Squan Beach, N. J.			29.80	756.9	33	0.6	80	NW	6	2.7		5k	0			1.05	26.7		
Toledo, Ohio			30.00	762.0	41	5.0	65	SW	4	1.8		0	0			0	0		
Tybee Island, Ga.			30.12	765.0	51	10.6	53	NW	10	4.5		2c	2s	W		0	0		
Vicksburg, Miss.			30.21	767.3	50	10.0	77	S	3	1.3		0	0			0	0		
Virginia City, Mon.			29.91	759.7	36	2.2	71	W	2	0.9		0	0			0	0		
Washington, D. C.			29.95	760.7	40	4.4	83	NW	10	4.5		Haze	0			0.01	0.3		
Wilmington, N. C.			30.04	763.0	50	10.0	44	W	11	4.9		2c	0	W		0	0		
Wood's Hole, Mass.			29.51	749.5	32	0.0	100	NE	17	7.6			10			0.92	23.4	Heavy snow	
Wytheville, Va.			29.80	756.9	40	4.4	64	NW	12	5.4		5k	0	W		0.29	7.4		
Yankton, D. T.			30.18	766.6	34	1.1	79	SW	5	2.2		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	84	28.9		E	7	3.1		5c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.00	762.0	74			NE				0	2s			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	73	22.8	90	NW	3.6	1.6		5k	5n	NW		2.00	50.8		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.18	766.6	76	24.4		Calm	0	0		0	2ks			0	0		James Gall.
St. Thomas, St. T., W. I.	30.26	768.6			75	23.9		S	2	0.9			10n			0.10	2.5	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.82	757.4	78	25.6	69	W	2.4	1.1		2ck	3ks	NE	N	0	0		Robert Mason.
St. Georges, Bermudas			29.71	754.6	68.5	20.3	77	W	16.6	7.4		5s	8ks	W		0.40	10.2		C. F. Allen.
Honolulu, Oahu, S. I.			30.11	764.8	63	17.2	78	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.91	759.7	60	15.6	81	Calm	0	0		2c	0	NE		0.27	6.9		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. Mc herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.05	763.3	0	—17.8	100	NE	15	6.7			10s			0.28	7.1		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	62	16.7	93	S	3.0	1.3		2c	5k	SSE		0	0		C. Partridge.
St. John's, Newfoundland			29.88	758.9	32.5	0.3	89	NE				Haze	Haze			0	0		John Delaney.
St. John's, Porto Rico, W. I			30.05	763.3	79.9	26.6	69	S			1	1ks	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			29.99	761.7	33	0.6	100	SW					Fog			1.20	30.5		H. M. Redington.
Indianola, Iowa	29.25	742.9			41	5.0		NW				0	6k			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 15, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.09	764.2	66.4	19.1		NW			2		1			0	0		Charnot.
Algiers			30.18	766.6	62.6	17.0	72	N			1		1			0	0		Peter.
La Calle			30.13	765.4	61.2	16.2		W			4		6			0	0		Kuntz.
Tunis			30.18	766.6	58.6	14.6	58	NE			3		7			0.071	1.8		Jacques.
Sfax																			Chauvey.
Saïda			30.09	764.3	66.7	19.3		N			2		6			0	0		Grosjean.
Tebessa			30.12	765.1	63.1	11.7		N			4		9			0	0		Colin.
Geriville			30.06	763.5	59.9	15.5		N			2		2			0	0		Bernadach.
Laghouat			30.07	763.8	68.0	20.0	21	NW			2		0			0	0		Poinsignon.
Biskra			30.13	765.2	73.9	23.3		NW			4		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.00	763.4	47.7	8.7	32	NE			5		8			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.10	764.6	44.2	6.8	51	WNW			2		4			0	0		I. R. Observatory.
Eperies			30.07	763.6	44.8	7.1	48	Calm			0		3			0	0		Julius Mikolik.
Gratz			30.07	763.7	46.6	8.1	44	E			5		2			0	0		Andreas Rospini.
Hermannstadt			30.04	763.1	44.6	7.0	53	SSE			5		6			0	0		Prof. Reissenberger.
Kremsmünster			30.13	765.4	44.2	6.8	39	NW			2					0	0		Prof. C. Wagner.
Lemberg			30.08	764.1	43.0	6.1	48	NW			2		1			0	0		Dr. T. Stanecki.
Ny'regyhaza			29.72	754.9	45.7	7.6	48	N			4		0			0	0		Habsuda Daniel.
Pola			29.98	761.6	48.9	9.4	23	NE			5		5ks			0	0		I. R. Hydrographic Office
Szegedin			30.04	763.1	46.4	8.0	46	E			2		10			0	0		Karl Stancel.
Trieste			30.00	761.9	52.3	11.3	20	ENE			3		0			0	0		Prof. V. Farolfi.
Vienna			30.11	764.8	47.3	8.5	25	NNE			1		0			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.13	765.4			48.6	9.2	66	NNE			1		10		N	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Upper. 0—10.	Clouds. Amount. Low'r. 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Low'r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.39	771.9	47.0	8.3		SSE	17	7.6			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.37	771.4	56	13.3		W			1		0					Fog	William McNeil.
Armagh Observatory			30.37	771.4	58.2	14.6		SSE	14	6.3			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.38	771.6	58.2	14.6		SE			2		0					Haze	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.32	770.1	59.8	15.4		SSE			1-3		0						J. Dreyer, for Ld Rosse.
Bradford			30.36	771.1	52.1	11.2		NE			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.42	772.7	52.0	11.1		NE			1		2						H. Todd.
Cape Town, (Cape Colony)			30.08	764.0	70.8	21.6		W			3		7						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.10	764.5			73.9	23.3	53	W			9		7						The Staff, for E. J. Stone
Cardington			30.40	772.1	54.0	12.2		NE					2						John McLaren.
Carlisle			30.32	770.1	62.9	17.2		S					3			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.40	772.1	44.0	6.7		NE			1		8					Mist	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.87	758.7	83.0	28.3		SE			1		10						Sgt. W. F. Hopkins
Dartmoor			30.41	772.4	54.0	12.2		E			1		0						R. E. Power.
Donaghadee			30.36	771.1	55	12.8		S			3		2						J. Mac Gowan, Jr.
Dover			30.40	772.1	46	7.8		NNE			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.38	771.6	57.2	14.0		ENE	0.6	0.2			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.38	771.6	50.7	10.4		ESE	16	7.2			1						The Staff.
Fort Napier, (Natal)			29.93	760.2	49.0	26.1		NE			2		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's Col ege			30.20	767.1	62	16.7		E			2		0						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.15	765.8	70.5	21.4		ENE			3		0						Sergt. E. G. Baker.
Glasgow Observatory			30.34	770.6	58.0	14.4		W			1		6					Mist	James Gray.
Great Yarmouth			30.42	772.7	47	8.3		NNE			2		2						G. T. Watson.
Greenwich Royal Obs.			30.42	772.7	43.5	6.4		ENE			1		10						The Staff, for G. B. Airy.
Guernsey			30.37	771.4	52.5	11.4		ENE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.36	771.1	53.4	11.9		ESE					0					Haze	F. J. Pierce, for L. J. Crossley.
Halifax, (Nova Scotia)			29.93	760.2	36.2	2.3		N			3		1						Corp'l J. Y. Thompson.
Helston			30.32	770.1	57	13.9		E			5		2						Dr. W. B. Mavle.
Holyhead			30.38	771.6	56	13.3		SW			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.42	772.7	45.5	7.5		NE	11	4.9			9						The Staff.
Kingstown			30.38	771.6	49	9.4		ESE			3		1						George Mitchell.
Lampeter																			
Leicester Museum			30.44	773.2	52.8	11.6		E			1		2						William J. Harrison
Llandudno			30.37	771.4	60.3	15.7		S			1		6						Dr. James Nicol.
Malta, (Mediterranean)			29.92	760.0	60.0	15.6		W			1		0k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.34	770.6	53	11.7		Calm			0		10					Haze	William D. Penny.
Nassau, (Bahamas)			30.05	763.5	69.5	20.8		NE			2		9					Rain	Surg.-Maj. J. Jameson.
North Shields			30.43	772.9	47	8.3		ESE			3		2						John Wm. Irvine.
Nottingham			30.42	772.7	55.0	12.8		NE			2		7k		NE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.40	772.1	55.2	12.9		ENE			3		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.37	771.4	51	10.6		N			1		6						J. Lucas, for R. Main.
Plymouth			30.37	771.4	55.0	12.8		S			2		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.32	770.1	54	12.2		SSE			4		2						W. Kennedy.
Saint Ann's Head			30.36	771.1	51	10.6		SE			1		1					Haze	John C. Walker.
Saint Helier, (Jersey)			30.36	771.1	58.8	14.9		W			1		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.36	771.1	50.0	10.0		S	15	6.7			6						Rev. C. Clouston.
Scarborough			30.45	773.2	44.0	6.7		ESE			1		1						F. Shaw.
Scutari, (Turkey)			29.97	761.2	48.0	8.9		E			3		10					Showery	Sergt. W. H. Lyne.
Sheffield			30.40	772.1	52.9	11.6		SE			1		3			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.38	771.6	59.4	15.2		N			1		0			0	0	Haze	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.40	772.1	50.0	10.0		NNE			1		6						Rev. C. J. Steward.
Stonyhurst Observatory			30.28	769.1	56.6	13.7		E			1		2					Haze	The Staff.
Stornoway, Lews C. (Hebr).			30.32	770.1	51	10.6		Calm			0		5					Fog	John Smith.
Strathfield Turgiss			30.39	771.9	54.4	12.4		NE			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.41	772.4	56.5	13.6		ENE			1		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.29	769.4	50	10.0		SW			1		10						William Lawrence.
Taunton College																			
Thurso			30.34	770.6	53	11.7		NW			2		6					Haze	John Trotter.
Truro Royal Institution			30.30	769.6	58	14.4		E			4		0						W Newcombe.
Valencia Observatory			30.22	767.6	55.0	12.8		SE	38	17.0			3						The Staff.
Wick																			
Wisbeach																			
Worthing			30.38	771.6	49.5	9.7		SE			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0-12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0-10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.10	766.9	41.4	5.2	57	NNE			4		2						
Fanöe			30.27	768.9	50.7	10.4	51	N			2		2						
Godthaab, (Greenland)			29.82	757.3	32.7	0.4		E			4		10					Rain	
Stykkisholm, (Iceland)			30.19	766.7	44.6	7.0	79	SE			2		8						
Thorshavn, (Faröe)			30.30	769.6	47.1	8.4	86	W			2		10						
Vestervig			30.28	769.1	47.5	8.6	52	ENE			2		0						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.82	757.5	61.3	16.3	69						5ks						Normal School.
Alençon																			Normal School.
Amiens			30.36	771.2	52.9	11.6	85	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.35	770.8	54.1	12.3	29	NNE			2		0			0	0		Normal School.
Besançon			30.21	767.4	54.9	12.6	34	ENE			2		0			0	0		Normal School.
Bourges			30.25	768.3	56.1	13.4	38	NE			1		0			0	0		Normal School.
Brest			30.28	769.1	63.5	17.5	44	SSW			1		0			0	0		Naval Observatory.
Caen			30.37	771.3	53.4	11.9	45	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.30	769.7	55.4	13.0		N			2		0			0	0		Normal School.
Chaumont			30.24	768.1	53.8	12.1		NW			6		0			0	0		Normal School.
Le Mans			30.41	772.4	54.0	12.2	41	E			2		0			0	0		Normal School.
Mirecourt			30.18	766.6	50.0	10.0	26	NE			4		1		S	0	0		Normal School.
Orleans																			Normal School.
Paris			30.32	770.0	54.9	12.7		NNE			2		0			0	0	Haze	National Observatory.
Parthenay			30.25	768.3	59.0	15.0	51	NE			2		0			0	0		Normal School.
La Roche sur Yon			30.35	770.8	60.1	15.6	36	ENE			4		0			0	0		Normal School.
Rouen			30.35	770.8	59.7	15.4	38	ENE			2		0			0	0		Normal School.
Saint Lo			30.34	770.7	58.3	14.6	42	N			1		1		E	0	0		Normal School.
Villefranche			30.14	765.6	58.1	14.5	72	NE			6		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)					43.7	6.5	37	NNW	15.0	6.7			1		NNW	0	0		Frère Pascall.
Mont-Louis	24.01	632.7			45.7	7.6	37	NNW	15.0	6.7			1		NNW	0	0		— Falguère.
Montsouris (near Paris)			30.31	769.8	56.5	13.6	33	N	8.7	3.9			0			0	0	Haze	Marié Davy.
Perpignan	29.99	761.8			64.4	18.0	21	WNW	13.0	5.8			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.31	769.8	57.6	14.2	33	NNE			2		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.29	769.4	58.5	14.7	21	ENE			2		0			0	0		C. Marquet.
Versailles, (near Paris)			30.31	769.9	57.2	14.0	25	N			4		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.13	765.3	48.2	9.0	70	N	5.4	2.4			Fog			0	0	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,686.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.19	766.9	39.0	3.3	97	NW			2		10			0.020	0.5	Rain	Prof. Hoh.
Berlin			30.18	766.5	48.0	8.9	64	NW			3		8			0.150	3.8		Prof. Arndt.
Breslau			30.17	766.3	39.2	4.0	38	W			3		10			0	0	Rain	Dr. P. Neugebauer.
Carlsruhe			30.23	767.9	47.3	8.5	53	NE			2		10			0	0		A. Senz.
Cassel			30.21	767.2	44.8	7.1	71	NW			5		10			0	0		Dr. H. Möhl.
Cologne			30.27	768.9	45.0	7.2	63	WNW			4		4			0	0		Dr. Garthe.
Emden			30.36	771.2	48.4	9.1	75	NE			3		1			0	0		Prof. Prestel.
Frankfort on the Main			30.34	770.7	48.9	9.2	51	N			3		8			0	0		Physical Society.
Friedrichshafen			30.21	767.2	45.0	7.5	45	W					6			0.024	0.6		M. Wilhelm.
Hamburg			30.26	768.6	48.7	9.3	52	NNE			4		8			0	0		W. Reinert.
Kiel			30.16	766.0	45.0	7.2	56	NNE					4			0	0		Prof. G. Karsten.
Königsberg			30.03	762.8	37.8	3.2	87	NW			2		9			0.087	2.2		Prof. E. Luther.
Köslin			30.30	769.7	41.2	5.1		N			2		7			0.161	4.1		Dr. T gert.
Leipsic			30.19	766.9	39.6	4.2	90	NNW			2		10			0.142	3.6	Drizzling	Prof. Bruhns.
Münster			30.28	769.2	45.7	7.6	81	N			2		0			0	0		Prof. E. Heis.
Posen			30.11	764.9	44.6	7.0	60	WNW			4		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.21	767.4	54.0	12.2	22	W					9			0	0		Hartwig and Tölk.
Stuttgart			30.19	766.7	48.0	9.2	48	N					10			0	0		Mr. Würth.
Thorn			30.06	763.4	41.4	5.2	84	W			3		10			0.024	0.6		Dr. Prasenbalg.
Treves, (Trier)			30.21	767.3	51.6	10.9	45	NW			5		4			0	0		Prof. Plesch.
Wustrow			30.23	767.9	42.3	5.7	74	NW			2		7			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.06	763.4	52.7	11.5	53	SW	1.3	0.6			2	NE		0	0		
Mondovi			30.02	762.4	48.9	9.4	52	S			1		0			0	0		
Genoa			30.02	762.5	57.2	14.0	32	NW	4.3	1.9			0			0	0		
Pavia			30.05	763.3	50.7	10.4	44	N			4		0			0	0		
Verona			30.00	761.9	54.3	12.4	33	E			2		0			0	0		
Padua			30.02	762.4	48.4	9.1	49	WNW	3.8	1.7			0			0	0		
Parma																			
Bologna			30.04	763.0	48.2	9.0	31	WNW			4		4	ESE		0	0		
Livorno			30.04	763.1	50.0	10.0	41	W	3.8	1.7			1			0	0		
Urbino			30.04	762.9	38.5	3.6	49	NNW			4		5			0	0		
Ancona			29.95	760.7	46.4	8.0	44	N			4		8	N		0	0		
Siena			30.00	762.1	46.0	7.8	29	N	15.0	6.7			0			0	0		
Rome			29.93	760.1	50.5	10.3	40	N	16.1	7.2			1			0	0		
Naples, O. U.			29.91	759.8	53.6	12.0	43	NE			2		4	NE		0	0		
Lecce			29.89	759.2	50.5	10.3	75	NNW	23.7	10.6			10			0	0		
Cosenza			29.92	760.0	48.2	9.0	80	NW			1		10			0.252	6.4	Rain	
Catania, (Sicily)			29.89	759.3	59.4	15.2	62	SE			2		8	NE		0	0		
Riposto																			
Palermo			29.87	758.7	52.0	11.1	64	W			4		10	NW		0.012	0.3	Rain	
Sub-Series.																			
Naples, S. R.	29.44	747.8			49.6	9.8	67	N			1		ck	N		0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.40	772.1	*48.6	9.2		NE			3								
Groningen			30.26	768.5	46.8	8.2		N			4								
Helder			30.34	770.5	44.4	6.9		NNW			4								
Utrecht			30.29	769.4	48.9	9.4		NNW			3		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.24	768.1	44.6	7.0	49	NNW	9.8	4.4			2			0	0		
Christiania			30.21	767.3	46.6	8.1	36	SSW	8.7	3.8			3			0	0		
Tromsö			30.05	763.3	27.3	− 2.6	96	SE			2		6			0.217	5.5		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.80	756.9			64.0	17.8	62	ESE	6.3	2.8			2						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.04	762.9	45.9	7.7	50	W	9	4			10						Astronomical Obs.
Wilna			30.01	762.2	37.9	3.3	93	W	4	2			10					Rain	Astronomical Obs.
Dorpat			29.82	757.4	39.2	4.0	50	NW	9	4			7					Snow	Physical Cabinet.
St. Petersburg			29.72	755.0	35.6	2.0	56	N	11	5			8						Central Physical Obs.
Kieff			30.18	766.5	41.7	5.4	57	WSW	9	4			9						Physical Cabinet.
Nikolaiev			30.26	768.5	46.0	8.1	43	NW	4	2			4						
Kertch			30.26	768.5	47.5	8.6	51	NNE	13	6			3						Lagorio.
Moscow			29.88	758.9	34.7	1.5	51	WSW	4	2			6						Meteorological Obs.
Lugan			30.11	764.8	38.1	3.4	49	W	17	7.5			10						Meteorological Obs.
Archangel			29.70	754.4	36.0	2.2	68	S	10	4.5			10						Ogorodnikof.
Tiflis			30.11	764.9	62.4	16.9	46	NE	10	4.5			9					Rain	Physical Obs.
Astrakhan			30.32	770.2	47.3	8.5	34	WNW	10	4.5			7						Sebastianof.
Kasan			29.59	751.6	30.2	− 1.0	65	N	4	2			10						Physical Cabinet.
Orenburg			29.73	755.1	34.9	1.6	71	S	17	7.5			10						Tschernischef.
Ekaterinburg			29.71	754.5	38.6	3.4	87	Calm	0	0			10					Rain	Meteorological Obs.
Kasaly																			Gobrof.
Tashkend																			Michelson.
Barnaul			30.10	764.5	55.8	13.2	36	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.82	757.3	38.8	3.8	87	W	10	4.5			10					Snow & rain	Sparks.
Irkutsk																			Usolzef.
Oorga			30.19	766.8	37.0	2.8	68	Calm	0	0			0						Mossin.
Peking, (China)			29.97	761.3	56.7	13.7	42	SW	8	3.5			0						Physical Observatory
Nertchinsk			29.48	748.9	28.8	− 1.8	48	Calm	0	0			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuoplo																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	763.1	72.1	22.3	30	NW	5.1	2.3		0	0			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory,

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.01	762.9	35.2	1.8	57	N			3		6			0	0		
Hernosand			30.06	763.6	38.1	3.4	41	N			3		8			0	0		
Stockholm			30.08	763.9	37.8	3.2	42	N			5		4			0	0		
Wisby			30.08	764.6	35.2	1.8	71	NNE			1		0			0	0		
Sub-Series.																			
Upsala			30.12	765.1	38.8	3.8	40	N			4		2	N					Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.72	729.6			53.8	12.1	12	NNW			4		0			0	0		The Observatory.
Zurich	28.51	724.2			50.2	10.1	29	NW			1		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.4mm.; Thermometer, +0°.2 C.; Relative Humidity, −45 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.78	756.5	76.1	24.5	65	SSW			3		10						
Constantinople			30.00	762.0	46.8	8.2	70	NE	16	7			10		NE	0	0		
Fao, (Persian Gulf)			30.12	765.0	83.5	28.6		NW			1		0						
Salonica			29.85	758.2	53.4	11.9		NE			6		10					Rain	
Valona			29.78	756.4	57.6	14.2		W			3		10						
Varna			30.12	765.0	46.4	8.0		E			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.82	757.2	47	8.3		SW	2	0.9		5c	2s	SW	SW	0	0		
Chatham, N. B.			29.97	761.2	25	−3.9	81	SW	1	0.4		8c	0			0	0		
Charlottetown, P. E. Island			29.93	760.2	31	−0.6	65	N	9	4.0		0	0			0	0		
Fort Garry, Manitoba			30.39	771.9	8	−13.3	89	NE	26	11.6		2k	5ks	N	N	0.16	4.1		
Halifax, N. S.			29.80	756.9	36	2.2	80	N	6	2.7		0	0			0	0		
Kingston, Ontario			29.80	756.9	39	3.9	78	S	8	3.6		10ck	0			0	0		
Montreal, Quebec			29.81	757.2	40	4.4	73	SW	12	5.4		5k	5ks	SW		0	0		
Ottawa, Ontario			29.78	756.4	38	3.3	46	S	4	1.8		5c	2n	S	S	0	0		
Parry Sound, Ontario			29.61	752.1	38	3.3	64	SE	5	2.2		5k	5ks	SW	SW	0	0		
Port Dover, Ontario			29.74	755.4	39	3.9	82	S	10	4.5		10k	0	S		0	0		
Port Stanley, Ontario			29.75	755.6	37	2.8	80	SW	6	2.7			10n		SW	0	0		
Quebec, Quebec			29.86	758.4	34	1.1	79	Calm	0	0			10n			0	0		
Saugeen, Ontario			29.61	752.1	41	5.0	74	S	4	1.8			10n			0	0		
Stayner, Ontario			29.62	752.3	45	7.2	76	SE	10	4.5			Haze			0	0		
Sydney, C. B.			29.84	757.9	33	0.6	56	NE	8	3.6		8c	0	W		0	0		
Toronto, Ontario			29.71	754.6	39	3.9	83	S	2	0.9			10ks		SW	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.88	758.9	43	6.1	66	S	10	4.5		2c	0	W		0	0		
Alpena, Mich.			29.44	747.8	35	1.7	89	SE	5	2.2			10n			0.05	1.3	Light rain	
Atlantic City, N. J.			29.96	761.0	42	5.6	96	S	6	2.7			10s			0	0		
Augusta, Ga.			30.04	763.0	51	10.6	65	NW	3	1.3		0	0			0	0		
Baltimore, Md.			29.94	760.5	48	8.9	70	N	2	0.9		2ck	Sm'e			0	0		
Barnegat, N. J.			29.95	760.7	48	8.9	71	SW	2	0.9		5k	0	W		0	0		
Benton, Montana			30.34	770.6	44	6.7	75	S	2	0.9		10k	0			0	0		
Bismarck, Dakota			30.46	773.7	19	— 7.2	69	N	9	4.0			10ks			0	0		
Boston, Mass.			29.93	760.2	39	3.9	72	W	5	2.2			10s			0.05	1.3		
Breckenridge, Minn.			30.03	762.7	21	— 6.1	85	NW	36	16.1		5k	0	NW		0	0		
Buffalo, N. Y.			29.72	754.6	44	6.7	60	SW	8	3.6		5ck	1s	W		0	0		
Burlington, Vt.			29.85	758.2	40	4.4	73	S	5	2.2			10s			0	0		
Cairo, Ill.			29.98	761.5	46	7.8	69	SW	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			29.98	761.5	56	13.3	80	SE	7	3.1		0	5ks		W	0	0		
Cape Henry, Va.			29.95	760.7	63	17.2	57	SW	8	3.6		2c	Haze			0	0		
Cape May, N. J.			29.97	761.2	46	7.8	85	S	12	5.4			10s			0	0	Threatening	
Charleston, S. C.			30.03	762.7	54	12.2	68	W	8	3.6		2ck	Sm'e		SW	0	0		
Cheyenne, W. T.			30.12	765.0	38	3.3	63	NW	12	5.4		2c	0	N		0	0		
Chicago, Ill.			29.44	747.8	47	8.3	70	SW	22	9.8			10n			0.01	0.3	Light rain	
Cincinnati, Ohio			29.86	758.4	47	8.3	76	SW	8	3.6		Haze	Sm'e			0	0		
Cleveland, Ohio			29.72	754.9	46.8	8.2	55	S	14	6.3		2cs	2s	W		0	0		
Colorado Springs, Col.			30.10	764.5	42	5.6	34	NW	9	4.0		0	0			0	0		
Corsicana, Texas			30.10	764.5	51	10.6	64	SW	6	2.7		0	0			0	0		
Davenport, Iowa			29.48	748.8	50	10.6	50	SW	28	12.5		5k	5ks	W	W	0	0		
Denver, Col.			30.18	766.6	40	4.4	48	S	6	2.7		2k	0	N		0	0		
Detroit, Mich.			29.64	752.8	42	5.6	65	SW	11	4.9			10s			0	0		
Dodge City, Kansas			29.66	753.4	41	5.0	31	N	12	5.4		0	0			0	0		
Dubuque, Iowa			29.46	748.3	48	8.9	78	NW	14	6.3			10s			0	0		
Duluth, Minn.			29.68	753.9	33	0.6	89	N	20	8.9		4k	6s	N		0.35	8.9		
Eastport, Me.			30.02	762.5	34	1.1	70	N	4	1.8		0	0			0	0		
Erie, Penn.			29.70	754.4	47	8.3	62	SE	12	5.4		2cs	Haze			0	0		
Escanaba, Mich.			29.20	741.7	37	2.8	90	N	8	3.6			10n			0.29	7.4	Light rain	
Fort Gibson, I. T.			29.98	761.5	48	8.9	62	E	4	1.8		5ck	0	W		0	0		
Fort St. Michael, Alaska							78	N	26	11.6			8s			0	0		
Fort Sully, D. T.			30.30	769.6	30	— 1.1	81	W	8	3.6		0	0			0	0		
Galveston, Texas			30.19	766.8	59	15.0	82	SW	25	11.2			10n			0.38	9.7	Light rain	
Grand Haven, Mich.			29.39	746.5	41	5.0	60	S	12	5.4			10s			0	0		
Indianapolis, Ind.			29.78	756.4	45	7.2	81	SW	10	4.5		0	0			0	0		
Indianola, Texas			30.22	767.6	58	14.4	57	SW	4	1.8		0	0			0	0		
Jacksonville, Fla.			30.10	764.5	58	14.4	58	W	24	10.7			10s			0	0		
Keokuk, Iowa			29.57	751.1	50	10.0	61	N	15	6.7			10s			0.04	1.0		
Key West, Fla.			30.09	764.3	67.8	19.9	86	S	4	1.8		2k	Haze			0	0		
Kittyhawk, N. C.			29.97	761.2	51	10.6	91	SW	3	1.3		0	Fog			0	0	Fog	
Knoxville, Tenn.			30.04	763.0	41	5.0	70	W	28	12.5			10n			0.03	0.8	Light rain	
La Crosse, Wis.			29.34	745.2	48	8.9	56	SE	6	2.7			10s			0	0		
Leavenworth, Kan.			29.78	756.4	48	8.9	84	S	14	6.2		0	0			0.01	0.3		
Lexington, Ky.			29.96	761.0	44	6.7	71	SW	1	0.4		2c	0	NW		0	0		
Long Branch, N. J.			29.97	761.2	48	8.9	77	S	3	1.3		Sm'e	0			0	0		
Louisville, Ky.			29.90	759.4	46	7.8	78	NE	1	0.4		5c	Haze	W		0	0		
Lynchburg, Va.			29.94	760.5	51	10.6	59	Calm	0	0		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.37	746.0	33	0.6	89	NW	12	5.4			10n			0.07	1.8	Heavy snow	
Memphis, Tenn.			30.07	763.8	48	8.9	70	SW	2	2.0		0	Sm'e			0.01	0.3		
Milwaukee, Wisconsin			29.30	744.2	47	8.3	85	SW	29	13.0			10s			0	0		
Mobile, Ala.			30.16	766.1	52	11.1	66	NW	5	2.2		0	Fog			0	0		
Montgomery, Ala.			30.15	765.8	51.5	10.8	79	Calm	0	0		0	Sm'e			0	0		
Morgantown, W. Virginia			29.85	758.2	49	9.[illegible]	63	S	9	4.0		10cs	0	W		0	0		
Mt. Washington, N. H.			29.89	759.2	23	— 5.0	73	SW	12	5.4		8s	0	SW		0	0		
Nashville, Tenn.			30.02	762.5	45	7.2	92	Calm	0	0		0	5s			0	0		
New Haven, Conn.			29.97	761.2	41	5.0	74	N	1	0.4		8ck	Sm'e	SW		0	0		
New London, Conn.			29.98	761.5	42	5.6	78	NE	1	0.4		5c	Haze	W		0	0		
New Orleans, La.			30.16	766.1	58	14.4	64	W	4	1.8		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.97	761.2	41	5.0	74	SW	6	2.7		0	0			0	0		
Norfolk, Va.			29.95	760.7	54	12.2	73	SW	9	4.0		2c	0			0	0		
North Platte, Neb.			29.72	754.9	45	7.2	76	NW	20	8.9		5c	2ks	NW	W	0	0		
Omaha, Neb.			29.84	757.9	45	7.2	68	N	28	12.5			10s			0	0		
Oswego, N. Y.			29.79	756.7	43.2	6.2	74	SSE	5	2.2			10ks			0	0	Threatening	
Peck's Beach			29.96	761.0	43	6.1	91	S	8	3.6			10s		W	0	0	Threatening	
Pembina, D. T.			29.38	746.2	9	—12.8	89	N	24	10.7		5ks	0			0.08	2.0		
Philadelphia, Penn.			29.96	761.0	44	6.7	84	W	1	0.4		5k	5s	W	W	0	0		
Pike's Peak, C. T.			30.04	763.0	12	—11.1	100	N	16	7.2		0	0			0.02	0.5		
Pittsburgh, Penn.			29.82	757.4	47.5	8.6	66	SW	14	6.3		0	10ks			0	0	Light rain	
Port Huron, Mich.			29.60	751.8	43	6.1	66	S	16	7.2			10s			0	0		
Portland, Maine			29.93	760.2	37	2.8	71	SW	3	1.3		5ck	0			0.02	0.5		
Portland, Or.			30.06	763.5	48	8.9	78	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			30.14	765.5	61.5	15.[illegible]	54	N	12	5.4			10ks			0.02	0.5		
Rochester, N. Y.			29.74	755.4	44	6.7	60	SW	8	3.6			10s			0.01	0.3		
Salt Lake City, Utah			30.16	766.1	44	6.7	46	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.94	760.5	43	6.1	75	SW	2	0.9		5k	Haze	W		0	0		
San Diego, Cal.			30.11	764.8	55	12.8	73	NW	4	1.8			10s			0	0		
San Francisco, Cal.			30.11	764.8	51	10.6	86	Calm	0	0		5ck	10s			0	0		
Santa Fe, N. M.			29.86	758.4	39	3.9	12	N	2	0.9		0	0			0	0		
Savannah, Georgia			30.05	763.3	55	12.8	57	SW	10	4.5		0	Sm'e			0	0		
Shreveport, La.			30.12	765.0	51	10.6	78	Calm	0	0		0	Sm'e			0	0		
Springfield, Mass.			29.93	760.2	40	4.4	63	S	4	1.8		0	Haze			0	0		
St. Louis, Mo.			29.85	758.2	46	7.8	61	SW	16	7.2			10s			0	0		
St. Marks, Fla.			30.12	765.0	50	10.0	93	W	1	0.4		2c	0	W		0	0		
St. Paul, Minn.			29.56	750.3	39	3.9	63	NW	25	11.2			10s			0.20	5.1		
St. Paul's Island, Alaska			30.39	771.9	32	0.0	79	W	11	4.9		1ck	8k	WNW		0	0		
Squan Beach, N. J.			29.76	761.0	43	6.1	10	S	4	1.8		8k	Sm'e			0	0		
Toledo, Ohio			29.69	754.1	44	6.7	59	S	14	6.3			10s			0	0		
Tybee Island, Ga.			30.03	762.7	58	14.4	57	W	12	5.4		0	0			0	0		
Vicksburg, Miss.			30.14	765.5	54	12.2	73	S	4	1.8		0	0			0	0		
Virginia City, Mon.			29.92	760.0	40	4.4	63	E	10	4.5		0	0			0	0		
Washington, D. C.			29.94	760.5	46.5	8.1	74	Calm	0	0		Haze	2s		SW	0	0		
Wilmington, N. C.			29.99	761.7	55	12.8	62	W	9	4.0		2k	0	SW		0	0		
Wood's Hole, Mass.			29.98	761.5	41	5.0	73	SW	11	4.9		0	0			0.04	2.0		
Wytheville, Va.			29.75	755.6	43	6.1	66	W	3	1.3		0	0			0	0		
Yankton, D. T.			30.09	764.3	33	0.6	79	NW	30	13.4			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.07	763.8	85	29.4		N	7	3.1		2c	5ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30. 3	762.7	78	25.6		NE				5k	5ks	NE		0	0	Fog	L. V. Bigard.
Havana, Cuba, W. I.			29.86	75[illegible].4	67	19.4	90	N	3.6	1.6			10n			0.79	20.1	Light rain	Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.22	767.6	76	24.4		Calm	0	0		1k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.28	769.1			76	24.4		S	4	1.8		1ck	2k	S		0.08	2.0		W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	77	25.0	76	E	1.2	0.5		2ck	2k	SW	E	0	0		Robert Mason.
St. Georges, Bermudas			30.02	762.5	63.5	17.5	68	WNW	10.2	4.6			10ks			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.14	765.5	64	17.8	79	Calm	0	0		5c	5ks			0	0	Threatening	E. P. Church.
Makawao, Maui, S. I.																0.30	7.6		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.34	770.6	−19.5	−28.6	100	NW	12	5.4		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	64	17.8	93	SE	4.0	1.8		5c	2k	SSE		0	0		C. Partridge.
St. John's, Newfoundland			29.70	754.4	30.5	− 0.8	100	NW				Haze	Haze			0.17	4.3	Rain	John Delaney.
St. John's, Porto Rico, W. I.																			Leon M. Acuña.
Ellyria, Ohio.			29.74	755.4	44	6.7	52	SW	12	5.4		0	2s			0	0		H. M. Redington.
Indianola, Iowa	28.80	731.5			51	10.6		NW				2c	6k			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 16, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P. M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.00	762.1	66.4	19.1		WNW			2		2			0	0		Charnot.
Algiers			30.14	765.5	64.0	17.8	55	NNE			1		0			0	0		Peter.
La Calle			30.20	767.0	58.1	14.5		W			4		6			0	0		Kuntz.
Tunis			30.24	768.1	53.2	11.8	79	W			3		8			0.134	3.4	Rain	Jacques.
Sfax																			Chauvey.
Saida			30.03	762.8	70.2	21.2		SE			2		2			0	0		Grosjean.
Tebessa			30.18	766.5	58.1	14.5		NNW			4		1			0	0		Colin.
Geriville			30.04	762 9	68.2	20.1		NW			3		1			0	0		Bernadach.
Laghouat			30.08	764.0	69.8	21.0	20	NW			3		0			0	0		Poinsignon.
Biskra			30.17	766.2	72.5	22.5		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.12	765.1	49.6	9.8	33	NE			4		6			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.23	767.7	38.3	3.5	67	NW			3		10			0	0		I. R. Observatory.
Eperies			30.08	764.1	44.6	7.0	55	NW			4		10		S	0.008	0.21	Rain	Julius Mikolik.
Gratz			30.17	766.3	47.5	8.6	52	NE			5		5			0	0		Andreas Rospini.
Hermannstadt			30.02	762.4	42.4	5.8	79	ESE			2		10			0.264	6.70	Rain	Prof. Reissenberger.
Kremsmünster			30.23	767.9	42.8	6.0	70	WNW			2		10			0.039	1.0		Prof. C. Wagner.
Lemberg			30.09	764.2	38.3	3.5	90	NW			2		10			0.008	0.2	Rain & snow	Dr. T. Stanecki.
Nyiregyhaza			30.06	763.5	51.1	10.6	49	N			3		5			0	0		Habesuda Daniel.
Pola			30.09	764.2	52.3	11.3	29	NE			4		7ks		E	0	0		I. R. Hydrographic Office
Szegedin			30.02	762.5	52.9	11.6	27	E			3		6			0	0		Karl Stancel.
Trieste			30.10	764.6	54.9	12.7	30	ENE			2		4			0	0		Prof. V. Farolfi.
Vienna			30.19	766 9	43.2	6.2	67	NW			2		10			0.004	0.1		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.13	765.4			48.0	8.9	75	NNE			1		3	WSW	NNW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.29	769.4	41.0	5.0		ESE	9	4.0						0	0	Fog	William Boswell.
Annanhill																			
Ardrossan			30.28	769.1	55	12.8		SW			1		5					Mist	William McNeil.
Armagh Observatory			30.27	768.8	59.9	15.5		S	15	6.7			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			30.30	769.6	57.4	14.1		ESE			1		0					Haze	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.23	767.8	61.0	16.1		SSE			1–3		2						J. Dreyer, for L'd Rosse
Bradford			30.25	768.3	57.8	14.3		E			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.34	770.6	46.1	7.8		SW			1		4						H. Todd.
Cape Town, (Cape Colony)			30.01	762 2	72.0	22.2		NW			1		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			76.5	24.7	45	S	9	4.0			2						The Staff, for E. J. Stone
Cardington			30.36	771.1	55.6	13.1		SW					4						John McLaren.
Carlisle			30.29	769.4	57.0	13.9		Calm								0	0	Mist	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.34	770.6	49.0	9.4		E			1		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.87	758.7	85.0	29.4		SE			1		8						Sgt. W. F. Hopkins
Dartmoor			30.39	771.9	42.0	5.6		E			1		10						R. E. Power.
Donaghadee			30.28	769.1	54	12.2		ESE			3		4						J. Mac Gowan, Jr.
Dover			30.36	771.1	46	7.8		ESE			2		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.30	769.6	59.9	15.5		ESE	2.6	1.2			0					Mist	Thomas Mackereth.
Falmouth Observatory			30.31	769.9	48.1	8.9		ESE	21	9.4			10						The Staff.
Fort Napier, (Natal)			29.96	761.0	70.0	21.1		E			2		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's Col ege			30.05	763.3	63	17.2		SE			2		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.04	763.0	65.2	18.4		NE			3		2						Sergt. E. G. Baker.
Glasgow Observatory			30.27	768.8	57.2	14.0		SW			1		8						James Gray.
Great Yarmouth			30.37	771.4	45	7.2		SE			2		3					Haze	G. T. Watson.
Greenwich Royal Obs.			30.35	770.9	54.2	12.3		ESE			1		0						The Staff, for G. B. Airy.
Guernsey			30.32	770.1	51.0	10.6		NE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.24	768.1	58.5	14.7		WSW					2						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			30.11	764.8	40.0	4.4		S			2		2						Corp'l J. Y. Thompson.
Helston			30.25	768.3	56.0	13.3		E			4		4						Dr. W. B. Mavle.
Holyhead			30.30	769.6	55	12.8		SW			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.25	768.3	52.7	11.5		ESE	12	5.4								Mist	The Staff.
Kingstown			30.30	769.6	52	11.1		SSE			3		3						George Mitchell.
Lampeter																			
Leicester Museum			30.36	771.1	52.8	11.6		SW			2		0						William J. Harrison
Llandudno			30.29	769.4	58.9	14.9		N			1		0						Dr. James Nicol.
Malta, (Mediterranean)			30.00	762.0	58.4	14.7		NW			1		8k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.25	768.3	49	9.4		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.11	764.8	71.2	21.8		NW			3		5						Surg.-Maj. J. Jameson.
North Shields			30.30	769.6	52	11.1		E			2		10					Fog	John Wm. Irvine.
Nottingham			30.34	770.6	57.7	14.3		S			3		0					Solar halo	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.32	770.1	55.0	12.8		S			3		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.32	770.1	53	11.7		SE			1		0					Haze	J. Lucas, for R. Main.
Plymouth			30.34	770.6	52.0	11.1		E			4		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.25	768 3	54	12.2		S-E			5		5					Haze	W. Kennedy.
Saint Ann's Head			30.31	769.9	48	8.9		SE			2		5					Haze	John C. Walker.
Saint Helier, (Jersey)			30.29	769.1	58.2	14.6		E			3		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.27	768.8	50.5	10.3		ESE	14	6.3			0						Rev. C. Clouston
Scarborough			30.31	769.9	54.5	12.5		Calm			0		8						F. Shaw.
Scutari, (Turkey)			29.93	760.2	46.8	8.2		N			2		10					Mist	Sergt. W. H. Lyne.
Sheffield			30.29	769.4	58.9	14.9		SSW			1		5			0	0	Haze	W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.30	769.6	56.0	13 3		W			1		5			0	0	Haze	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.35	770.9	52.0	11.1		E			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.30	769 6	57.4	14.1		SW			1		5					Haze	The Staff.
Stornoway, Lews C. (Hebr)			30.22	767.6	53	11.7		SE			1		1						John Smith.
Strathfield Turgiss			30.31	769.9	57.0	14.2		SE			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.36	771 1	58.8	14.9		SSE			2		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.24	768.1	50	10.0		Calm			0		5						William Lawrence.
Taunton College																			
Thurso			30.26	768.6	54	12.2		SE			2		4					Haze	John Trotter.
Truro, Royal Institution			30.28	769.1	53	11.7		E			4		6						W Newcombe.
Valencia Observatory			30.14	765.5	57.5	14.2		SE	37	16.5			6						The Staff.
Wick																			
Wisbeach																			
Worthing			30.37	771.4	47.4	8.6		SSE			1		3						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.17	766.2	44.6	7.0	66	WNW			2		10						
Fanöe			30.24	768.0	46.2	7.9	82	W			4		10						
Godthaab, (Greenland)			29.82	757.4	34.3	1.3		Calm			0		10					Rain	
Stykkisholm, (Iceland)			30.03	762.7	42.6	5.9	87	Calm			0		8						
Thorshavn, (Faröe)			30.23	767.8	50.7	10.4	76	S			2		10						
Vestervig			30.13	765.4	47.8	8.8	81	NW			6		0						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Upper 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.86	758.5	58.6	14.8	50						5ck						Normal School.
Alengon																			Normal School.
Amiens			30.37	771.4	59.4	15.2	50	NW			2		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.33	770.4	51.3	10.7	43	E			1		10			0	0		Normal School.
Besançon			30.23	767.7	55.4	13.0	35	NE			6		0			0	0		Normal School.
Bourges			30.26	768.6	54.7	12.6	41	NE			1		0			0	0		Normal School.
Brest			30.18	766.6	67.3	19.5	57	SSW			1		0			0	0		Naval Observatory.
Caen			30.31	769.9	54.9	12.7	61	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.27	768.8	55.6	13.1		NNE			1		0			0	0		Normal School.
Chaumont			30.26	768.6	53.8	12.1		WNW			3		0			0	0		Normal School.
Le Mans			30.30	771.1	54.9	12.7	35	E			2		0			0	0		Normal School.
Mirecourt			30.19	766.7	49.8	9.9	41	NE			2		1		SW	0	0		Normal School.
Orleans																			Normal School.
Paris			30.29	769.4	53.6	12.0		E			2		0			0	0	Haze	National Observatory.
Parthenay			30.15	765.9	56.3	13.5	38	E			6		0			0	0		Normal School.
La Roche sur Yon			30.22	767.5	61.0	16.1	47	NE			4		0			0	0		Normal School.
Rouen			30.30	769.5	59.2	15.1	44	N			2		0			0	0		Normal School.
Saint Lo			30.28	769.1	58.5	14.7	41	SE			2		1		E	0	0		Normal School.
Villefranche			30.20	767.1	58.1	14.5	74	NNW			1		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascal.
Mont-Louis	24.92	632.9			50.4	10.2	35	ENE	13.0	5.8			0			0	0		—. Falguère.
Montsouris (near Paris)			30.29	769.4	54.3	12.4	41	N	3.1	1.4			0			0	0	Haze	Marié Davy.
Perpignan	30.04	763.0			59.0	15.0	38	E	7.4	3.3			0			0	0		Dr. Fines.
Saint Maur, (near Paris)			30.29	769.3	57.2	14.0	37	NNE			1		0			0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.25	768.3	56.8	13.8	33	ESE			2		0			0	0		C. Marquet.
Versailles, (near Paris)			30.28	769.2	56.1	13.4	40	NE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.09	764.4	47.8	8.8	81	E	2.7	1.2			6			0	0		H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.21	767.2	46.8	8.2	48	NW			2		7			0.008	0.2		Prof. Hoh.
Berlin			30.25	768.3	51.1	10.6	36	SW			4		5			0	0		Prof. Arndt.
Breslau			30.31	769.9	40.3	4.6	49	NNE			2		3			0	0		Dr. P. Neugebauer.
Carlsruhe			30.28	769.2	51.8	11.0	47	E			1		9			0	0		A. Senz.
Cassel			30.23	767.9	56.3	13.5	53	N			1		6			0	0		Dr. H. Möhl.
Cologne			30.28	769.1	51.3	10.7	55	NE			3		7			0	0		Dr. Garthe.
Emden			30.41	772.3	44.4	6.9	74	NW			1		10			0	0		Prof. Prestel.
Frankfort on the Main			30.37	771.3	54.5	12.5	38	NE			2		4			0	0		Physical Society.
Friedrichshafen			30.27	768.8	48.2	9.0	36	NE					8			0	0		M. Wilhelm.
Hamburg			30.32	770.2	46.4	8.0	60	NW			4		7			0	0		W. Reinert.
Kiel			30.31	769.8	46.9	8.3	66	W			3		10			0	0		Prof. G. Karsten.
Königsberg			30.24	768.1	37.8	3.2	60	NW			4		8			0	0		Prof. E. Luther.
Köslin			30.40	772.2	44.4	6.9		W			2		8			0	0		Dr. T gert.
Leipsic			30.31	769.9	45.7	7.6	55	ENE			2		6			0.004	0.1		Prof. Bruhns.
Münster			30.26	768.7	52.0	11.1	57	NW			1		0			0	0		Prof. E. Heis.
Posen			30.30	769.7	44.6	7.0	40	NW			2		7			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.28	769.2	52.7	11.5	37	NE					8			0	0		Hartwig and Tülk.
Stuttgart			30.26	768.6	54.0	12.2	43	NE					8			0	0		Mr. Würth.
Thorn			30.25	768.3	41.0	5.0	71	NE			4		0			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.24	768.0	54.0	12.2	37	NE			3		1			0	0		Prof. Flesch.
Wustrow			30.26	768.7	41.2	5.1	82	WNW			2		6			0	0		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.10	764.6	55.9	13.3	37	ESE	1.8	0.8			0			0	0		
Mondovi			30.11	764.9	51.6	10.9	31	NNW			2		0			0	0		
Genoa			30.10	764.6	58.5	14.7	34	SW	3.8	1.7			0			0	0		
Pavia			30.12	765.1	55.4	13.0	32	SE			2		0			0	0		
Verona			30.08	764.1	58.3	14.6	39	E			1		0			0	0		
Padua			30.11	764.7	54.5	12.5	43	SE	4.3	1.9			0			0	0		
Parma																			
Bologna			30.13	765.2	54.5	12.5	28	ENE			6		4	S		0	0		
Livorno			30.11	764.7	53.8	12.1	33	ENE	8.7	3.9			3			0	0		
Urbino			30.11	764.9	42.8	6.0	53	NE			6		9			0	0		
Ancona			30.10	764.6	50.7	10.4	51	ENE			2		5			0	0		
Siena			30.09	764.3	47.3	8.5	35	NE	8.7	3.9			8	NE		0	0		
Rome			29.99	761.8	55.6	13.1	37	NNE	15.4	6.9			5	ENE		0	0		
Naples, O. U.			29.98	761.5	54.3	12.4	48	N			2		10	NE		0.139	1.0		
Lecce			30.00	761.9	53.8	12.1	43	SW	5.6	2.5			3			0	0		
Cosenza			29.95	760.7	54.7	12.6	50	SE			1		10			0	0		
Catania, (Sicily)			30.01	762.3	57.2	14.0	51	SW			2		10	SW		0	0		
Riposto																			
Palermo			29.93	760.3	54.0	12.2	50	NW			4		9	NW		0.075	1.9		
Sub-Series.																			
Naples, S. R.	29.45	747.9			49.6	9.8	67	N			4		-k	NW		0.012	0.3		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.39	771.9	46.0	7.8		NW			2								
Groningen			30.34	770.6	42.6	5.9		NNW			2								
Helder			30.28	769.0	43.7	6.5		NNW			2								
Utrecht			30.31	769.8	49.3	9.6		NNW			2		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.21	767.3	45.7	7.6	68	NW	5.8	2.6			6			0	0		
Christiania			30.04	763.0	52.5	11.4	46	SSW	5.6	2.5			5			0	0		
Tromsö			29.98	761.5	31.6	− 0.2	92	SW			2		2			0.217	5.5		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.72	754.9			65.5	18.6	60	S	6.3	2.8			3						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.20	767.1	41.0	5.0	54	Calm	0	0			7						Astronomical Obs.
Wilna			30.17	766.4	37.6	3.1	50	NW	8	3.5			3						Astronomical Obs.
Uorpat			30.03	762.8	33.8	1.0	66	SW	7	3			10				Snow		Physical Cabinet.
St. Petersburg			29.90	759.5	28.2	− 2.1	73	W	13	6			7						Central Physical Obs.
Kieff			30.07	763.7	38.1	3.4	95	NNE	9	4			7						Physical Cabinet.
Nikolaiev			30.04	762.9	43.7	6.5	58	NNE	8	3.5			8						
Kertch			29.84	758.0	43.3	6.3	84	NE	20	9			10						Lagorio.
Moscow			29.90	759.4	29.3	− 1.5	51	W	17	7.5			7						Meteorological Obs.
Lugan			29.87	758.7	47.3	8.5	48	NE	8	3.5			9						Meteorological Obs.
Archangel			29.78	756.4	27.7	− 2.4	87	NW	10	4.5			9						Ogorodnikof.
Tiflis			30.06	763.4	56.5	13.6	61	Calm	0	0			8						Physical Obs.
Astrakhan			30.12	765.1	45.0	7.2	58	ESE	10	4.5			10						Sebastianof.
Kasan			29.68	753.8	33.8	1.0	94	S	10	4.5			10				Snow		Physical Cabinet.
Orenburg			30.13	765.3	40.1	4.5	47	W	4	2			9						Tschernischef.
Ekaterinburg			29.68	753.9	28.4	− 2.0	72	W	20	9			2						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.72	754.8	58.5	14.7	41	S	4	2			4						Meteorological Obs.
Yeniseisk			29.69	754.2	46.8	8.2	76	Calm	0	0			0						Varks.
Irkutsk																			Usolzef.
Oorga			29.97	761.2	40.6	4.8	54	Calm	0	0			0						Mossin.
Peking, (China)			29.88	758.9	63.0	17.2	32	Calm	0	0			0						Physical Observatory
Nertchinsk			29.47	748.5	36.9	2.7	87	SSE	8	3.5			10				Rain		Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.98	761.6	72.0	22.2	31	SW	4.5	2.0		1	0	NW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			30.08	764.1	32.4	0.2	74	S			1		10			0	0		
Hernosand			30.09	764.3	32.0	0.0	85	ENE			2		8			0.01	0.2		
Stockholm			29.94	760.4	43.2	6.2	62	W			5		8			0	0		
Wisby			30.12	765.0	41.0	5.0	69	W			2		0			0	0		
Sub-Series.																			
Upsala			29.94	760.5	45.7	7.6	59	NW			4		10		NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.76	730.4			48.9	9.4	47	NNW			2		0			0	0		The Observatory.
Zurich	28.57	725.6			48.7	9.3	42	NE			2		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +6.2mm.; Thermometer, —2°.6 C.; Relative Humidity, —10 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.89	759.3	81.9	27.7	59	W			1		5						
Constantinople			29.95	760.6	45.7	7.6	84	NNE	11	5			10		NE	0	0		
Fao, (Persian Gulf)			30.11	764.8	77.0	25.0		SE			3		10						
Salonica			29.89	759.3	52.2	11.2		SW			1		10						
Valona			29.93	760.2	54.5	12.5		SW			1		10						
Varna			30.00	762.0	47.3	8.5		NE			6		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.67	753.6	32	0.0		SW	8	3.6			10n		SW	0.12	3.0		
Chatham, N. B.			30.02	762.5	31	— 0.6	71	Calm	0	0		0	0			0	0		
Charlottetown, P. E. Island			30.05	763.3	31	— 0.6	94	Calm	0	0		0	0			0	0		
Fort Garry, Manitoba			30.53	750.0	2	—16.7	94	N	9	4.0		0	0			0	0		
Halifax, N. S.			29.93	760.2	40	4.4	45	SE	4	1.8		0	0			0	0		
Kingston, Ontario			29.63	752.6	31	— 0.6	70	SW	10	4.5			10kr		SW	0.38	9.7		
Montreal, Quebec			29.54	750.3	38	3.3	89	SW	24	10.7			10n		SW	0.22	5.6	Sleet	
Ottawa, Ontario			29.51	749.5	30	2.2	61	S	6	2.7		10k	0	S		0.02	0.5		
Parry Sound, Ontario			29.58	751.3	15	— 9.4	83	W	24	10.7		2k	5s	W	W	0.52	13.2		
Port Dover, Ontario			29.68	753.9	22	— 5.6	58	W	11	4.9		5k	0	W		0	0		
Port Stanley, Ontario			29.71	754.6	21	— 6.1	71	W	45	20.1		5cs	0	W		0	0		
Quebec, Quebec			29.73	755.1	37	2.8	90	E	8	3.6			10n		E	0	0		
Saugeen, Ontario			29.62	752.3	15	— 9.4	78	W	15	6.7		8ks	0			0	0		
Stayner, Ontario			29.68	753.9	22	— 5.6	52	NW	12	5.4			10n		N	0.21	5.3	Light snow.	
Sydney, C. B.			30.03	762.7	36	2.2	57	SW	3	1.3		Haze	0			0	0		
Toronto, Ontario			29.64	752.8	25	— 3.9	70	W	15	6.7		10ks		W		0.21	5.3		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.55	750.6	45	7.2	92	S	10	4.5			10ks			0.01	0.3		
Alpena, Mich.			29.62	752.3	9	—12.8	78	NW	18	8.0			10n			0.23	5.8	Light snow.	
Atlantic City, N. J.			29.60	751.8	45	7.2	92	S	12	5.4		0	8ks		SW	0	0		
Augusta, Ga.			29.81	757.2	60	15.6	65	SW	8	3.6		5cs	0	W		0	0		
Baltimore, Md.			29.61	752.1	51	10.6	52	NW	4	1.8		2ck	5s	W	SW	0.02	0.5		
Barnegat, N. J.			29.60	751.8	45	7.2	92	SE	4	1.8			10s			0	0		
Benton, Montana			30.20	767.1	36	2.2	80	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.44	773.2	15	— 9.4	47	N	2	0.9		0	0			0	0		
Boston, Mass.			29.74	755.4	47	8.3	85	SE	11	4.9			10s			0	0		
Breckenridge, Minn.			30.40	772.1	10	—12.2	85	N	20	8.9		0	0			0	0		
Buffalo, N. Y.			29.61	752.1	25	— 3.9	75	W	16	7.2		Haze	8ks			0.05	1.3		
Burlington, Vt.			29.54	750.3	47	8.3	92	S	8	3.6			10n			0.17	4.3	Light rain.	
Cairo, Ill.			30.15	765.8	35	1.7	44	N	20	8.9		0	0			0.02	0.5		
Cape Hatteras, N. C.			29.76	755.9	61	16.1	71	SW	19	8.5		Haze	Haze			0	0		
Cape Henry, Va.			29.66	753.4	57	13.9	58	S	16	7.2			10s			0.12	3.0		
Cape May, N. J.			29.60	751.8	47	8.3	85	S	22	9.8			10s			0	0		
Charleston, S. C.			29.87	758.7	61	16.1	66	SW	12	5.4		0	Haze			0	0		
Cheyenne, W. T.			30.15	765.8	33	0.6	79	N	8	3.6		0	0			0	0		
Chicago, Ill.			29.93	760.2	20	— 6.7	70	NW	14	6.3		5k	0	NW		0.01	0.3		
Cincinnati, Ohio			29.89	759.2	32	0.0	60	NW	16	7.2		2k	0	NW		0.05	1.3		
Cleveland, Ohio			29.75	755.6	23.8	— 4.6	87	NW	17	7.6			10n			0.10	2.5	Light snow.	
Colorado Springs, Col.			30.13	765.3	36	2.2	88	NE	3	1.3		0	5s			0.02	0.5		
Corsicana, Texas			30.25	768.3	50	10.0	46	N	11	4.9		0	0			0	0		
Davenport, Iowa			30.12	765.0	19	— 7.2	75	N	24	10.7		2k	5s	NW	NW	0	0		
Denver, Col.			30.24	768.1	33	0.6	70	SE	4	1.8		0	0			0	0		
Detroit, Mich.			29.75	755.6	19	— 7.2	69	W	18	8.0		5k	0	W		0.09	2.3		
Dodge City, Kansas			30.06	763.5	38	3.3	63	SE	4	1.8		0	0			0	0		
Dubuque, Iowa			30.10	764.5	18	— 7.8	68	NE	16	7.2		0	5s			0	0		
Duluth, Minn.			30.22	767.6	7	—13.9	77	NW	12	5.4		0	0			0.03	0.8		
Eastport, Me.			29.96	761.0	39	3.9	64	SE			1		10s		SE	0	0		
Erie, Penn.			29.67	753.6	26	— 3.3	88	W	28	12.5		0	10ks			0.28	7.1	Threatening	
Escanaba, Mich.			29.86	758.4	6	—14.4	88	N	28	12.5			10ks			0	0		
Fort Gibson, I. T.			30.31	769.9	38	3.3	46	NE	10	4.5		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.51	774.9	20	— 6.7	70	N	8	3.6		0	0			0	0		
Galveston, Texas			30.18	766.6	60	15.6	88	NW	17	7.6		0	0			0	0		
Grand Haven, Mich.			29.86	758.4	16	— 8.9	75	N	26	11.6			10n			0.11	2.8	Light snow.	
Indianapolis, Ind.			29.94	760.5	25	— 3.9	62	NW	16	7.2		2k	0	NW		0.09	2.3		
Indianola, Texas			30.18	766.6	62	16.7	78	W	4	1.8		0	0			0	0		
Jacksonville, Fla.			30.00	762.0	68	20.0	68	SW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.15	765.8	22	— 5.6	58	NW	20	8.9		2ck	5ks	NW		0	0		
Key West, Fla.			30.16	766.1	68.7	20.4	52	NW	6	2.7		Haze	5ks			0	0		
Kittyhawk, N. C.			29.73	755.1	59	15.0	59	S	24	10.7		10k	0	S		0	0		
Knoxville, Tenn.			29.88	758.9	46	7.8	54	W	16	7.2		1k	0	W		0	0		
La Crosse, Wis.			30.12	765.0	15	— 9.4	65	N	20	8.9		5k	2ks	NW		0.04	1.0		
Leavenworth, Kan.			30.33	770.4	26	— 3.3	52	W	16	7.2		0	0			0	0		
Lexington, Ky.			29.91	759.7	33	0.6	70	NW	20	8.9			10s			0	0		
Long Branch, N. J.			29.60	751.8	42	5.6	91	S	12	5.4			10s		SW	0.02	0.5		
Louisville, Ky.			29.96	761.0	30	— 1.1	78	W	18	8.0			10s			0	0	Light snow.	
Lynchburg, Va.			29.62	752.3	56	13.3	43	W	6	2.7		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.80	756.9	4	—15.6	87	W	24	10.7			10n			0.18	4.6	Light snow.	
Memphis, Tenn.			30.16	766.1	46	7.8	19	NW	20	8.9		0	0			0	0		
Milwaukee, Wisconsin			29.96	761.0	14	—10.0	66	NW	32	14.3		0	5ks			0	0		
Mobile, Ala.			30.01	762.2	63	17.2	70	NW	12	5.4		0	0			0	0		
Montgomery, Ala.			29.97	761.2	57.5	14.2	72	NW	5	2.2		0	Haze			0	0		
Morgantown, W. Virginia			29.70	754.4	33	0.1	89	NW	10	4.5			10n			1.12	28.4	Heavy snow	
Mt. Washington, N. H.			29.72	754.9	36	2.2	100	S	70	31.3			Fog			0	0		
Nashville, Tenn.			30.04	763.0	42	5.6	48	NW	12	5.4		2k	0	NW		0	0		
New Haven, Conn.			29.67	753.6	46	7.8	92	E	7	3.1			10n			0.08	2.0	Light rain.	
New London, Conn.			29.72	754.9	43	6.1	96	SE	12	5.4			10n		S	0.01	0.3	Light rain.	
New Orleans, La.			30.10	764.8	64	17.8	72	W	12	5.4		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.59	751.6	46	7.8	84	S	9	4.0			10s			0	0		
Norfolk, Va.			29.67	753.6	57	13.9	57	S	16	7.2			10s			0	0		
North Platte, Neb.			30.02	762.5	36	2.2	70	Calm	0	0			10ks		N	0	0		
Omaha, Neb.			30.37	771.4	21	— 6.1	71	N	21	9.4		2c	0	W		0	0		
Oswego, N. Y.			29.63	752.5	33.5	0.8	65	W	20	8.9			10ks			0.22	5.6		
Peck's Beach			29.60	751.8	45	7.2	92	S	18	8.0			10s			0	0		
Pembina, D. T.			30.50	763.3	4	—15.6	86	N	4	1.8		0	0			0	0		
Philadelphia, Penn.			29.60	751.8	51	10.6	78	W	6	2.7			10s		W	0.01	0.3		
Pike's Peak, C. T.			30.04	763.0	19	—10.6	62	N	12	5.4		1k	0	E		0.00	2.3		
Pittsburgh, Penn.			29.70	754.4	30	— 1.1	78	NW	12	5.4			10s			0.27	6.9	Threatening	
Port Huron, Mich.			29.70	754.4	18	— 7.8	68	W	18	8.0		5k	0	W		0.09	2.3		
Portland, Maine			29.82	757.4	42	5.6	83	S	14	6.3			10s			0.07	1.8		
Portland, Or.			30.17	766.3	48	8.9	85	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			30.15	765.8	71	21.7	57	W	4	1.8		5ck	0	W		0	0		
Rochester, N. Y.			29.59	751.8	31	— 0.6	60	W	16	7.2		0	5ks			0.14	3.5		
Salt Lake City, Utah			30.14	765.5	47	8.3	48	NE	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.56	750.8	47	8.3	92	SE	20	8.9			10ks		SW	0.01	0.3	Threatenin.	
San Diego, Cal.			30.12	765.0	55	12.8	87	Calm	0	0			10s			0	0		
San Francisco, Cal.			30.16	766.1	50	10.0	86	SW	10	4.5			10s			0	0		
Santa Fe, N. M.			29.85	759.2	41	5.0	41	S	4	1.8		0	0			0	0		
Savannah, Georgia			29.88	758.9	62	16.7	66	SW	12	5.4		0	0			0	0		
Shreveport, La.			30.22	767.6	57	13.9	41	N	4	1.8		0	0			0	0		
Springfield, Mass.			29.66	753.9	45	7.2	88	S	8	3.6			10n		S	0.13	3.3	Light rain.	
St. Louis, Mo.			30.16	766.1	27	— 2.8	53	NW	17	7.6		2c	0	NW		0	0		
St. Marks, Fla.			29.90	761.7	64	17.8	88	SW	12	5.4		0	0			0	0		
St. Paul, Minn.			30.08	764.0	10	—12.2	79	NW	20	8.9		0	8s			0	0		
St. Paul's Island, Alaska			30.50	774.7	32	0.0	69	SSE	13	5.8		1ck	8k	E		0.01	0.3		
Squan Beach, N. J.			29.60	751.6	44	6.7	92	SW	14	6.3			10s		SW	0	0		
Toledo, Ohio			29.81	757.2	25	— 3.9	63	W	12	5.4		0	5s			0.13	3.3		
Tybee Island, Ga.			29.80	759.2	66	18.9	64	SW	18	8.0		0	Sm'e			0	0		
Vicksburg, Miss.			30.20	767.1	57	13.9	62	N	11	4.9		0	0			0	0		
Virginia City, Mon.			29.94	760.5	39	3.9	63	E	2	0.9		0	0			0	0		
Washington, D. C.			29.62	752.3	49	9.4	67	N	4	1.8			8s		SW	0	0		
Wilmington, N. C.			29.78	756.4	63	17.2	46	SW	16	7.2		0	0			0	0		
Wood's Hole, Mass.			29.78	756.4	49	9.4	71	SE	21	9.4		0	5s			0	0		
Wytheville, Va.			29.46	748.3	43	6.1	43	NW	10	4.5		2k	0	W		0	0		
Yankton, D. T.			30.50	774.7	17	— 8.3	75	NW	15	6.7		5k	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction.* From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	79	26.1		NE	4	1.8		2c	5ks	NE		0.10	2.5		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.06	763.5	78	25.6		E				2k	2ks	E.		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.91	759.7	71	21.7	79	N	4.8	2.2		2fck	0	NE		0.08	2.0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.26	766.1	78	25.6		Calm	0	0		10cs	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			76	24.4		S	3	1.3		2ck	2k	S		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.91	759.7	77	25.0	72	NW	1.2	0.5		2ck	5n	SW	WNW	0	0		Robert Mason.
St. Georges, Bermudas			29.83	757.7	63.5	17.5	86	SW	4.5	2.0			10n			0.265	6.85		C. F. Allen.
Honolulu, Oahu, S. I.			30.07	763.8	71	21.7	73	NE			2	0	2ks			0	0		E. P. Church.
Makawao, Maui, S. I.																1.56	39.6		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.43	772.9	—22.5	—30.3		W	6	2.7		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.12	765.0	63	17.2	93	SE	2.0	0.9		2c	2k	S		0.17	4.3		C. Partridge.
St. John's, Newfoundland			30.08	764.0	32	0.0	100	NE				Haze	Haze			0.10	2.5		John Delaney.
St. John's, Porto Rico, W. I.			30.12	765.1	81.0	27.2	62	W			1	0	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			29.76	755.9	23	— 5.0	60	W	25	11.2		0	5ks			0.20	5.1		H. M. Redington.
Indianola, Iowa	29.42	747.3			18	— 7.8		NW				0	1k			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 17, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.91	759.7	63.0	17.2		NE			3		0			0	0		Charnot.
Algiers			30.04	762.9	62.6	17.0	72	NNE			2		2			0	0		Peter.
La Calle			30.17	766.3	57.4	14.1		W			4		6			0	0		Kuntz.
Tunis			30.19	766.8	60.3	15.7	52	NNE			8		8			0	0		Jacques.
Sfax																			Chauvey.
Saida			29.97	761.1	71.8	22.1		S			4		6			0	0		Grosjean.
Tebessa			30.17	766.2	61.3	16.3		NE			2		1			0	0		Colin.
Geriville			29.96	761.0	66.4	19.1		S			2		0			0	0		Bernadach.
Laghouat			30.04	763.0	68.0	20.0	36	W			1		8			0	0		Poinsignon.
Biskra			30.15	765.8	68.7	20.4		NE			3		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Wind. Direction.	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rainfall. Inches.	Rainfall. Millimeters.	Weather.	Observer.
Agram			30.13	765.4	52.9	11.6	31	NE			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.18	766.6	46.0	7.8	49	W			1		10			0.004	0.1		I. R. Observatory.
Eperies			30.10	764.6	44.4	6.9	48	N			2		9		8	0	0		Julius Mikolik.
Gratz			30.13	765.2	54.1	12.3	35	E			5		5			0	0		Andreas Rospini.
Hermannstadt			29.97	761.3	47.1	8.4	53	NW			3		8			0.199	5.05	Rain	Prof. Reissenberger.
Kremsmünster			30.20	767.0	46.9	8.3	47	NNE			2		3			0	0		Prof. C. Wagner.
Lemberg			30.07	763.6	41.9	5.5	49	N			2		10			0	0		Dr. T. Stanecki.
Ny'regyhaza			30.09	764.4	48.9	9.4	44	N			4		3			0	0		Habsuda Daniel.
Pola			30.16	766.1	51.4	10.8	56	NW			2		4ks			0	0		I. R. Hydrographic Office
Szegedin			30.07	763.8	51.1	10.6	33	SE			3		6			0	0		Karl Stancel.
Trieste			30.14	765.6	56.1	13.4	59	WSW			1		8			0	0		Prof. V. Farolfi.
Vienna			30.17	766.4	48.7	9.3	36	NNW			1		7			0.008	0.2	Rain	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Millimeters.	Temperature. Fahrenheit.	Temperature. Centigrade.	Relative Humidity.	Wind. Direction.	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Force.	Clouds. Amount. Up'er	Clouds. Amount. Low'r	Clouds. Direction. Upper.	Clouds. Direction. Lower.	Rainfall. Inches.	Rainfall. Millimeters.	Weather.	Observer.
Brussels	30.01	762.2			52.2	11.2	56	ESE			1		3		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.14	765.5	60.4	15.8		SSE	11	4.9			0			0	0	Haze	William Boswell.
Annanhill																			
Ardrossan			30.20	767.1	56	13.3		SSW			2		3						William McNeil.
ArmaghObservatory			30.18	766.6	60.1	15.6		SSE	10	4.5			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.20	767.1	59.0	15.0		ESE			1		2					Haze	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.13	765.3	61.7	16.5		SE			1		2						J. Dreyer, for L'd Rosse
Bradford			30.17	766.3	55.3	12.9		W			1		1						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.08	764.0	80.0	26.7		NE			2		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.20	767.1	58.0	14.4		Calm			0		7					Haze	H. Todd.
Cape Town, (Cape Colony)			29.88	758.9	66	18.9		NW			3		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.92	760.0			69.6	20.9	59	SE	9.5	4.2			2						The Staff, for E. J. Stone
Cardington			30.23	767.8	60.0	15.6		S					2						John McLaren.
Carlisle			30.19	766.8	60.1	15.6		W					9			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.23	767.8	55.0	12.8		NE			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	82.8	28.2		SE			2		5						Sgt. W. F. Hopkins
Dartmoor			30.24	768.1	48.0	8.9		E			4		0						R. E. Power.
Donaghadee			30.17	766.3	53	11.7		SSW			3		0						J. Mac Gowan, Jr.
Dover			30.23	767.8	47	8.3		E			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.19	766.8	62.3	16.8		SSW	1.4	0.6			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.15	765.8	49.6	9.8		E	25	11.2			6						The Staff.
Fort Napier, (Natal)			29.91	759.7	76.0	24.4		E			3		0						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.01	762.2	66	18.9		SE			1		0						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.96	761.0	64.2	17.9		NE			3		10						Sergt. E. G. Baker.
Glasgow Observatory			30.17	766.3	59.5	15.3		W			1		7						James Gray.
Great Yarmouth			30.23	767.8	47	8.3		SSE			2		3						G. T. Watson.
Greenwich Royal Obs.			30.22	767.6	59.4	15.2		E			1		0						The Staff, for G. B. Airy.
Guernsey			30.14	765.5	53	11.7		NE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.16	766.1	59.1	15.1		E					0					Haze	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.89	759.2	33.0	0.6		E			4		10					Rain	Corp'l J. Y. Thompson.
Helston			30.13	765.3	57	13.9		E			4		4						Dr. W. B. Mavle.
Holyhead			30.02	762.5	54	12.2		SW			1		0						John Tilston.
Hull Park																			
Kew Observatory			30.22	767.6	59.4	15.2		ESE	8	3.6			0						The Staff.
Kingstown			30.20	767.1	53	11.7		SSE			3		3						George Mitchell.
Lampeter																			
Leicester Museum			30.23	767.8	58.4	14.7		SW			1		0						William J. Harrison
Llandudno					57.0	13.9		ESE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	60.0	15.6		NW			3		2k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.10	764.5	66	18.9		Calm			0		1c						William D. Penny.
Nassau, (Bahamas)			30.10	764.5	72.3	22.4		W			2		1						Surg.-Maj. J. Jameson.
North Shields			30.22	767.6	46	7.8		E			1		7					Fog	John Wm. Irvine.
Nottingham			30.22	767.6	62.0	16.7		SW			1		0						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.19	766.8	61.0	16.1		S			1		0					Haze	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.20	767.1	59	15.0		SE			1		0					Haze	J. Lucas, for R. Main.
Plymouth			30.16	766.1	55	12.8		E			4		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.12	765.0	54	12.2		SE			5		2						W. Kennedy.
Saint Ann's Head			30.16	766.1	53	11.7		ESE			3		4					Haze	John C. Walker.
Saint Helier, (Jersey)			30.12	765.0	60.8	16.0		E			3		0						A. P. Amy.
Sandwick Manse(Orkneys)			30.13	765.3	54.0	12.2		W	13	5.8			5						Rev. C. Clouston.
Scarborough			30.24	768.1	43.8	6.6		SE			2		10					Fog	F. Shaw.
Scutari, (Turkey)			29.98	761.5	45.0	7.2		NE			2		10					Showery	Sergt. W. H. Lyne.
Sheffield			30.23	767.8	59.7	15.4		SW			1		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.20	767.1	59.6	15.3		W			1		3			0	0	Haze	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.22	767.6	61.2	16.2		SSW			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.19	766.8	58.1	14.5		N			1		10					Haze	The Staff.
Stornoway, Lewis C. (Hebr.)			30.09	764.3	58	14.4		SSW			4		7					Haze	John Smith.
Strathfield Turgiss			30.22	767.6	63.5	17.5		SE			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.22	767.6	63.1	17.3		E			2		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.09	764.3	49	9.4		SSW			5		10						William Lawrence.
Taunton College																			
Thurso			30.11	764.8	55	12.8		Calm			0		6					Mist	John Trotter.
Truro Royal Institution			30.09	764.3	56	13.3		E			6		0						W Newcombe.
Valencia Observatory			30.01	762.2	58.8	14.9		SE	41	18.3			3						The Staff.
Wick																			
Wisbeach																			
Worthing			30.24	768.1	50.2	10.1		SE			2		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.26	768.7	40.5	4.7	81	S			2		10					Mist
Fanöe			30.24	768.0	45.0	7.2	86	W			2		1					
Godthaab, (Greenland)			29.91	759.7	36.1	2.3		Calm			0		10					
Stykkisholm, (Iceland)			29.84	757.8	43.2	6.2	81	Calm			0		10					
Thorshavn, (Faröe)			29.93	760.2	48.7	9.3	93	SW			4		10					Rain
Vestervig			30.19	766.8	41.7	5.4	91	SW			1		10					

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.08	763.9	63.0	17.2	46						5k						Normal School.
Alençon																			Normal School.
Amiens			30.20	767.1	55.0	12.8	63	NE			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.19	766.8	54.9	12.7	40	E			1		0			0	0		Normal School.
Besançon			30.12	765.1	60.4	15.8	25	NE			5		0			0	0		Normal School.
Bourges			30.09	764.2	61.9	16.6	34	NNE			8		0			0	0		Normal School.
Brest			29.97	761.2	65.3	18.5	43	E			3		0			0	0		Naval Observatory.
Caen			30.15	765.8	56.3	13.5	69	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.12	765.1	61.7	16.5		E			1		0			0	0		Normal School.
Chaumont			30.09	764.3	59.2	15.1		NNE			3		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.06	763.5	53.6	12.0	40	NE			2		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.23	767.7	58.6	14.8		NNE			1		0			0	0		National Observatory.
Parthenay			29.99	761.8	59.0	15.0	31	E			4		0			0	0		Normal School.
La Roche sur Yon			30.03	762.8	66.7	19.3	31	E			5		0			0	0		Normal School.
Rouen			30.15	765.8	62.4	16.9	35	ENE			2		0			0	0		Normal School.
Saint Lo			30.09	764.2	62.2	16.8	36	E			3		1		E	0	0		Normal School.
Villefranche			30.11	764.9	64.6	18.1	62	SE			1		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.84	630.9			51.6	10.9	60	E	9.3	4.17			2			0	0		—. Falguère.
Montsouris (near Paris)			30.14	765.6	60.8	16.0	38	E	2.6	1.14			0			0	0		Marié Davy.
Perpignan	29.91	759.8			61.0	16.1	61	NE	3.7	1.67			2		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)																0	0		E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.08	764.1	63.0	17.2	26	ESE			3		0			0	0		C. Marquet.
Versailles, (near Paris)			30.14	765.6	61.2	16.2	35	NE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.06	763.5	54.1	12.3	74	SSE	9.8	4.4			0			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.17	766.3	50.4	10.2	46	NE			4		5			0	0		Prof. Hoh.
Berlin			30.28	769.2	49.5	9.7	57	NW			1		10			0	0		Prof. Arndt.
Breslau			30.25	768.3	45.3	7.4	60	NW			5		10			0.043	1.1		Dr. P. Neugebauer.
Carlsruhe			30.16	766.1	57.2	14.0	29	NE			2		1			0	0		A. Senz.
Cassel			29.79	756.6	54.0	12.2	53	E			2		3			0	0		Dr. H. Möhl.
Cologne			30.22	767.5	53.4	11.9	54	NE			1		4			0	0		Dr. Garthe.
Emden			30.30	769.6	52.7	11.5	56	NE			1		5			0	0		Prof. Prestel.
Frankfort on the Main			30.28	769.1	57.4	14.1	36	E			2		3			0	0		Physical Society.
Friedrichshafen			30.17	766.3	50.0	10.0	50	W					0			0	0		M. Wilhelm.
Hamburg			30.30	769.6	48.7	9.3	52	NW			4		10			0	0	Fog	W. Reinert.
Kiel			30.30	769.5	47.1	8.5	68	N			3		7			0	0		Prof. G. Karsten.
Königsberg			30.23	767.8	36.9	2.7	33	NE			4		0			0	0		Prof. E. Luther.
Köslin			30.36	771.2	48.0	8.9		NE			2		5			0	0		Dr. T gert.
Leipsic			30.27	768.8	49.3	9.6	54	NW			4		9			0	0		Prof. Bruhns.
Münster			30.24	768.0	54.5	12.5	59	N			2		0			0	0		Prof. E. Heis.
Posen			30.20	767.0	51.3	10.7	46	NW			2		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.16	766.0	56.3	13.5	33	NE					0			0	0		Hartwig and Tülk.
Stuttgart			30.16	766.0	55.0	13.0	35	NE					2			0	0		Mr. Würth.
Thorn			30.19	766.7	46.4	8.0	69	NE			5		6			0	0		Dr. . enbalg.
Treves, (Trier)			30.12	765.0	57.2	14.0	38	SE			2		1			0	0		Prof. Flesch.
Wustrow			30.28	769.1	44.8	7.1	66	NNW			2		5			0	0		E. F. chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.13	765.2	57.9	14.4	48	SSW	1.3	0.6			4	NE		0	0		
Mondovi			30.13	765.3	52.0	11.1	47	NW			2		1	SSW		0	0		
Genoa			30.17	766.3	56.5	13.6	63	S	3.1	1.4			8	NW		0	0		
Pavia			30.13	765.4	57.2	14.0	41	N			2		1	NE		0	0		
Verona			30.09	764.3	60.8	16.0	32	SW			1		0			0	0		
Padua			30.12	765.0	55.6	13.1	35	W	3.8	1.7			5	WNW		0	0		
Parma																			
Bologna			30.14	765.5	60.4	15.8	19	ESE			4		3	W		0	0		
Livorno			30.13	765.3	57.6	14.2	34	NW	5.6	2.5			1			0	0		
Urbino			30.17	766.4	46.0	7.8	55	NE			6		9			0	0		
Ancona			30.17	766.3	50.4	10.2	55	W			4		3			0	0		
Siena			30.13	765.2	53.2	11.8	38	NE	0	0			7	N		0	0		
Rome			29.97	761.3	58.1	14.5	31	NE	4.9	2.2			5	E		0	0		
Naples, O.U.			30.11	764.9	57.6	14.2	43	W			2		10			0	0		
Lecce			30.05	763.3	54.7	12.6	52	N	18.6	8.3			3			0	0		
Cosenza			30.09	764.2	54.7	12.6	50	SE			2		10			0	0		
Catania, (Sicily)			30.10	764.5	57.2	14.0	50	ESE			2		2	NW		0	0		
Riposto																			
Palermo			30.05	763.2	56.3	13.5	51	N			2		3			0	0		
SUB-SERIES.																			
Naples, S. R.	29.58	751.2			53.6	12.0	56	NE			4		k			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.27	768.8	48.2	9.0		WNW			2								
Groningen			30.21	767.4	50.9	10.5		SE			1								
Helder			30.25	768.4	46.8	8.2		WSW			1								
Utrecht			30.20	767.1	53.1	11.7	48	NNE			2		0						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.19	766.7	46.0	7.8	59	Calm	0	0			10			0.236	6.0		
Christiania			30.11	764.9	46.8	8.2	62	WSW	8.7	3.9			1			0	0		
Tromsö			29.64	752.9	33.8	1.0	94	NE			6		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.53	750.0			62.1	16.7	71	SSW	17.4	7.8			10						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.12	765.0	45.7	7.6	59	N	9	4			10					Light rain	Astronomical Obs.
Wilna			30.15	765.9	31.5	— 0.3	64	N	13	6			4						Astronomical Obs.
Dorpat			30.19	766.7	28.8	— 1.8	58	N	11	5			0						Physical Cabinet.
St. Petersburg			30.08	764.0	28.6	— 1.9	62	NNW	4	2			4						Central Physical Obs.
Kieff			30.02	762.6	41.9	5.5	39	WNW	4	2			7						Physical Cabinet.
Nikolaiev			29.98	761.5	49.5	9.7	46	NE	4	2			6						
Kertch			29.90	759.4	41.9	5.5	85	N	13	6			10					Mist	Lagorio.
Moscow			29.95	760.7	34.2	1.2	47	SSW	13	6			10						Meteorological Obs.
Lugan			29.80	756.9	37.9	3.3	82	NE	17	7.5			10					Snow & rain.	Meteorological Obs.
Archangel			30.04	762.9	16.2	— 8.8	88	WNW	8	3.5			0						Ogorodnikof.
Tiflis			29.64	752.9	72.7	22.6	41	SW	10	4.5			8						Physical Obs.
Astrakhan			29.86	758.5	58.1	14.5	49	NE	8	3.5			10						Sebastianof.
Kasan			29.91	759.6	32.9	0.5	62	W	8	3.5			3						Physical Cabinet.
Orenburg			29.96	760.9	38.5	3.6	87	SE	8	3.5			10						Tschernischef.
Ekaterinburg			29.82	757.5	34.3	1.3	76	SW	20	9			6						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.21	767.4	37.4	3.0	59	Calm	0	0			0						Meteorological Obs.
Yeniseisk			29.72	755.1	39.6	4.2	64	SW	10	4.5			10					Rain	Varks.
Irkutsk																			Usolzef.
Oorga			29.95	760.6	40.6	4.8	70	Calm	0	0			0						Mossin.
Peking, (China)			29.69	754.2	70.3	21.3	25	Calm	0	0			2						Physical Observatory
Nertchinsk			29.96	761.0	28.6	— 1.9	82	NW	1	2			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.87	758.8	72.7	22.6	31	S	9.6	4.3		3		NW		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.94	760.4	37.8	3.2	76	S			3		6			0	0		
Hernosand			29.62	752.2	42.8	6.0	47	SW			1		10			0	0		
Stockholm			30.18	766.6	36.1	2.3	47	SW			3		2			0	0		
Wisby			30.26	768.7	34.2	1.2	78	NNW			3		0			0	0		
Sub-Series.																			
Upsala			30.17	766.4	39.0	3.9	38	SW			4		8		NW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.70	728.9			51.4	10.8	38	NNE			2		0			0	0		The Observatory.
Zurich	28.48	723.3			53.1	11.7	34	NE			1		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.6mm.; Thermometer, —1°.4 C.; Relative Humidity, —19 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.92	759.9	67.6	19.8	88	W			2		0						
Constantinople			29.98	761.5	43.2	6.2	82	N	9	4			10		N	0.213	5.4	Light rain	
Fao. (Persian Gulf)			29.99	761.7	75.2	24.0		SE			3		10						
Salonica			29.94	760.4	55.0	13.3		SE			1		10						
Valona			29.93	760.1	56.8	13.8		NW			2		8						
Varna			30.04	763.0	48.2	9.0		E			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.81	757.2	31	— 0.6		Calm	0	0		0	2s		W	0	0		
Chatham, N. B.			29.93	760.2	20	— 1.7	94	NE	10	4.5			10s		N	0.03	0.8	Light snow	
Charlottetown, P. E. Island			29.99	761.7	32	0.0	98	SE	10	4.5			10ks			0	0		
Fort Garry, Manitoba			30.23	767.8	19	— 7.2	95	S	8	3.6		5k	0	N		0	0		
Halifax, N. S.			29.81	757.2	33	0.6	98	E	15	6.7			4n			0.02	0.5	Heavy rain	
Kingston, Ontario			29.79	756.7	25	— 3.9	96	SW	1	0.4		8k	0	SW		0	0		
Montreal, Quebec			29.68	753.9	29	— 1.7	77	SW	15	6.7		0	5ks			0.10	2.5		
Ottawa, Ontario			29.69	754.1	25	— 3.9	62	W	5	2.2			2s			0	0		
Parry Sound, Ontario			29.66	753.4	14	—10.0	82	SW	8	3.6		2cs	2ks	SW	SW	0	0		
Port Dover, Ontario			29.82	757.4	11	—11.7	80	W	9	4.0		0	0			0.10	2.5		
Port Stanley, Ontario			29.83	757.7	14	—10.0	82	W	35	15.6		2ck	0	W		0.05	1.3		
Quebec, Quebec			29.65	753.1	20	— 1.7	88	W			1		10n		W	0.15	3.8	Light snow	
Saugeen, Ontario			29.77	756.1	9	—12.8	83	NW	2	0.9			10n			0.02	0.5	Light snow	
Stayner, Ontario			29.76	755.9	10	12.2	94	Calm	0	0		8k	0	W		Blank	Blank		
Sydney, C. B.			30.14	765.5	33	0.6	89	E	4	1.8			10n			0	0		
Toronto, Ontario			29.79	756.7	18	— 7.8	62	W	11	4.9		5k	2ks	W	W	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.73	755.1	28	— 2.2	77	W	8	3.6		10k	0	W		0.97	24.6		
Alpena, Mich.			29.78	756.4	5	—15.0	75	NW	12	5.4		2cs	2ks	W	NW	0.05	1.3		
Atlantic City, N. J.			29.84	757.9	31	— 0.6	60	W	16	7.2		0	0			0.18	4.6		
Augusta, Ga.			30.00	762.0	41	5.0	41	NW	8	3.6		0	0			0	0		
Baltimore, Md.			29.89	759.2	31	— 0.6	60	NW	8	3.6		2k	0	W		0	0		
Barnegat, N. J.			29.80	756.9	34	1.1	56	W	15	6.7		2ck	0			0.06	1.5		
Benton, Montana			30.08	764.0	45	7.2	60	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.02	762.5	27	— 2.8	66	SE	3	1.3		0	Haze			0	0		
Boston, Mass.			29.64	752.8	33	0.6	69	NW	12	5.4		2c	2s	S	W	0.41	10.4		
Breckenridge, Minn.			30.24	768.1	20	— 6.7	85	N	6	2.7		5k	0	NW		0	0		
Buffalo, N. Y.			29.78	756.4	15	— 9.4	65	W	12	5.4		0	5ks		W	0.01	0.3		
Burlington, Vt.			29.72	754.9	28	— 2.2	77	NW	3	1.3		5c	2s			0.83	21.1		
Cairo, Ill.			30.19	766.8	26	— 3.3	50	W	9	4.0		0	0			0	0		
Cape Hatteras, N. C.			29.89	759.2	42	5.6	58	NE	18	8.0		0	5k			0	0		
Cape Henry, Va.			29.90	759.4	42	5.6	50	NW	8	3.6		2k	Haze	W		0	0		
Cape May, N. J.			29.87	758.7	32	0.0	60	NW	20	8.9		0	0			0.09	2.3		
Charleston, S. C.			29.96	761.0	48	8.9	37	NW	4	1.8		0	Sm'e			0	0		
Cheyenne, W. T.			30.06	763.5	41	5.0	41	NW	20	8.9		0	0			0	0		
Chicago, Ill.			29.88	758.9	20	— 6.7	85	NW	11	4.9			10s			0	0		
Cincinnati, Ohio			29.98	761.5	23	— 5.0	60	W	8	3.6			10ks		W	0.02	0.5		
Cleveland, Ohio			29.81	757.2	16.3	— 8.7	91	SW	14	6.3			10n		SW	0.18	4.6	Light snow.	
Colorado Springs, Col.			30.03	762.7	40	4.4	56	NW	6	2.7		0	0			0	0		
Corsicana, Texas			30.26	768.6	46	7.8	61	Calm	0	0		0	0			0	0		
Davenport, Iowa			30.03	762.7	19	— 7.2	69	NW	18	8.0		0	2s			0	0		
Denver, Col.			30.14	765.5	36	2.2	61	S	4	1.8		0	0			0	0		
Detroit, Mich.			29.81	757.2	15	— 9.4	65	W	10	4.5		2k	8s	W	W	0	0		
Dodge City, Kansas			29.83	757.7	41	5.0	49	S	4	1.8		0	0			0	0		
Dubuque, Iowa			30.00	762.0	18	— 7.8	68	NE	14	6.3		2cs	0	N		0	0		
Duluth, Minn.			30.10	764.5	17	— 8.3	67	NE	10	4.5			8s		NE	0	0		
Eastport, Me.			29.67	753.6	34	1.1	100	E			4		10n			0.37	9.4	Heavy rain.	
Erie, Penn.			29.78	756.4	18	— 7.8	83	NW	12	5.4			10n			0.03	0.8	Light snow.	
Escanaba, Mich.			29.87	758.7	8	—13.3	78	N	20	8.9			10s			0.02	0.5		
Fort Gibson, I. T.			30.25	768.3	36	2.2	70	W	1	0.4		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.13	765.3	28	— 2.2	77	NE	6	2.7		0	0			0	0		
Galveston, Texas			30.25	768.3	59	15.0	44	NE	10	4.5		0	0			0	0		
Grand Haven, Mich.			29.81	757.2	16	— 8.9	74	NW	23	10.3			10n			0	0	Light snow.	
Indianapolis, Ind.			29.96	761.0	21	— 6.1	57	W	8	3.6		Haze	Haze			0.03	0.8		
Indianola, Texas			30.25	768.3	62	16.7	59	E	24	10.7		0	Sm'e			0	0		
Jacksonville, Fla.			30.04	763.0	61	16.1	33	W	8	3.6		0	0			0	0		
Keokuk, Iowa			30.06	763.5	23	— 5.0	60	NW	4	1.8		0	0			0	0		
Key West, Fla.			30.13	765.3	72.9	22.7	92	NW	6	2.7		0	Haze			0	0		
Kittyhawk, N. C.			29.92	760.0	40	4.4	28	NW	12	5.4		0	0			0	0		
Knoxville, Tenn.			30.06	763.5	26	— 3.3	76	W	18	8.0			8ks		NW	0	0		
La Crosse, Wis.			30.00	762.0	17	— 8.3	51	NW	22	9.8		0	0			0	0		
Leavenworth, Kan.			30.24	768.1	26	— 3.3	67	NW	4	1.8		0	0			0	0		
Lexington, Ky.			30.02	762.5	25	— 3.9	75	W	18	8.0		8k	0	W		0	0		
Long Branch, N. J.			29.80	756.9	33	0.6	69	NW	25	11.2		0	0			0.14	3.5		
Louisville, Ky.			30.05	763.3	23	— 5.0	73	SW			2	Sm'e	2ks			0.03	0.8		
Lynchburg, Va.			29.94	760.5	30	— 1.1	56	NW	8	3.6		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.93	760.2	10	—12.2	79	N	8	3.6			10n			0.15	3.8	Heavy snow	
Memphis, Tenn.			30.22	767.6	38	3.3	38	NW	8	3.6		0	0			0	0		
Milwaukee, Wisconsin			29.88	758.9	15	— 9.4	100	NW	24	10.7			10n			0.03	0.8	Light snow.	
Mobile, Ala.			30.18	766.6	50	10.0	32	N	5	2.2		0	Haze			0	0		
Montgomery, Ala.			30.13	765.3	44	6.7	52	N	12	5.4		0	Haze			0	0		
Morgantown, W. Virginia			29.86	758.5	25	— 3.9	63	SW	16	7.6		5c	2s	SW		0.02	0.5		
Mt. Washington, N. H.			29.65	753.1	23	— 5.0	100	S	36	16.1		8s	8s		S	0.72	18.3		
Nashville, Tenn.			30.13	765.3	30	— 1.1	48	NW	10	4.5		5k	0	NW		0	0		
New Haven, Conn.			29.78	756.4	36	2.2	62	NW	9	4.0		0	0			0.62	15.7		
New London, Conn.			29.75	755.6	34.5	1.4	67	NW	8	3.6		2ck	0	SW		0.17	4.3		
New Orleans, La.			30.22	767.6	58	14.4	27	N	16	7.2		0	0			0	0		
Newport, R. I.																			
New York, N. Y.			29.83	757.7	30	— 1.1	59	W	16	7.2		0	0			0.15	3.8		
Norfolk, Va.			29.92	760.0	40	4.4	40	NW	6	2.7		5c	0			0	0		
North Platte, Neb.			29.82	757.4	31	— 0.6	67	SE	4	1.8		0	0			0	0		
Omaha, Neb.			30.22	767.6	25	— 3.9	75	W	6	2.7		2ck	0			0	0		
Oswego, N. Y.			29.76	755.9	26	— 3.3	82	W	12	5.4			10ks			0	0	Threatening	
Peck's Beach			29.86	758.4	32	0.0	60	NW	24	10.7		Haze	Haze			0.08	2.0		
Pembina, D. T.			30.21	767.3	20	— 6.7	85	SE	4	1.8		5c	5s			0	0		
Philadelphia, Penn.			29.85	758.0	29	— 1.7	59	NW	10	4.5		0	0			0.11	2.8		
Pike's Peak, C. T.			30.06	763.5	15	— 9.4	73	NW	23	10.3		0	0			0.02	0.5		
Pittsburgh, Penn.			29.84	757.9	21	— 6.1	73	W	12	5.4		2k	0	NW		0.03	0.8		
Port Huron, Mich.			29.79	756.7	13	—10.6	62	W	16	7.2			10s		W	0.02	0.5		
Portland, Maine			29.54	750.3	38	3.3	90	W	6	2.7			10s			0.75	18.8	Threatening	
Portland, Or.			30.20	767.1	50	10.0	78	W	4	1.8		Haze	Haze			0	0		
Punta Rassa, Fla.			30.10	764.5	72.5	22.5	67	NW	6	2.7		0	8ks		NW	0	0		
Rochester, N. Y.			29.76	755.9	21	— 6.1	85	W	8	3.6			10s			0	0		
Salt Lake City, Utah			30.11	764.8	43	6.1	58	E	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.78	756.4	31	— 0.6	68	W	30	13.4		8k	0	W		0.16	4.1		
San Diego, Cal.			30.09	764.3	55	12.8	79	SE	4	1.8			10s			0	0		
San Francisco, Cal.			30.16	766.1	50	10.0	86	SW	8	3.6			10s			0	0		
Santa Fe, N. M.			29.84	757.9	45	7.2	39	SE	8	3.6		0	0			0	0		
Savannah, Georgia			29.98	761.5	52	11.1	27	W	4	1.8		0	Sm'e			0	0		
Shreveport, La.			30.28	769.1	49	9.4	63	W	4	1.8		0	0			0	0		
Springfield, Mass.			29.71	754.6	32	0.0	60	W	8	3.6		0	0			0.81	20.6		
St. Louis, Mo.			30.14	765.5	25	— 3.9	75	NW	10	4.5		0	0			0	0		
St. Marks, Fla.			30.07	763.8	50	10.0	77	NW	4	1.8		0	0			0	0		
St. Paul, Minn.			30.05	763.3	15	— 9.4	82	NW	16	7.2		0	0			0	0		
St. Paul's Island, Alaska			30.58	776.7	32	0.0	69	SE	16	7.2		10ck	1ks	SSW		0	0		
Squan Beach, N. J.			29.84	757.9	30	— 1.1	60	W	14	6.3		0	0			0.35	8.9		
Toledo, Ohio			29.85	758.2	19	— 7.2	84	SW	18	8.0			10s		SW	0.12	3.0		
Tybee Island, Ga.			29.99	761.7	52	11.1	86	NW	8	3.6		0	Sm'e			0	0		
Vicksburg, Miss.			30.29	769.4	50	10.0	86	N	9	4.0		0	0			0	0		
Virginia City, Mon.			29.87	758.7	40	4.4	63	Calm	0	0		0	0			0	0		
Washington, D. C.			29.90	759.4	28	— 2.2	59	NW	11	4.9		1k	Haze			0	0		
Wilmington, N. C.			29.95	760.7	41	5.0	28	NE	10	4.5		0	0			0	0		
Wood's Hole, Mass.			29.68	753.9	34	1.1	79	W	16	7.2			10s			0.11	2.8		
Wytheville, Va.			29.75	755.6	19	— 7.2	69	W	10	4.5		2k	0	W		0	0		
Yankton, D. T.			30.28	769.1	24	— 4.4	74	Calm	0	0		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	84	28.9		E	6	2.7		2c	5ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.02	762.5	76	24.4		E				0	2k			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.91	759.7	68	20.0	90	S	2.4	1.1		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768.8	77	25.0		Calm	0	0		8c	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			76	24.4		N				2ck	5k	N		0.20	5.1	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.93	760.2	76	24.4	72	NW	7.2	3.2		3c	2k	N	NNW	Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.93	760.2	65.5	18.6	86	SSW	1.6	0.7		10k	2d	W		0.210	5.33		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	56	13.3	70	S			1	0	5cs			0	0		E. P. Church.
Makawao, Maui, S. I.			29.94	760.5	54.5	12.5	87	NE	8.4	3.8		2ck	1ks	SW	NE	0.05	1.3		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.														SE					
York Factory, B. A.			30.07	763.8	2.0	—16.7	100	S	12	5.4		4c	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.09	764.3	65	18.3	93	S	4.0	1.8		0	8k			0	0		C. Partridge.
St. John's, Newfoundland			30.22	767.6	31.5	— 0.5	89	N				2k	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.*			30.11	764.7	79.2	26.0	69	S			1	0	0			0	0		Leon M. Acuña.
Ellyria, Ohio.			29.84	757.9	17	8.3	84	W	12	5.4			10n			0.44	11.2		H. M. Redington.
Indianola, Iowa	29.32	744.7			21	6.1		NW				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 18, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.84	758.	63.5	17.5		NW			2		6			0	0		Charnot.
Algiers			29.92	759.9	64.4	18.0	78	ESE			1		10			0.035	0.9		Peter.
La Calle			30.15	765.8	59.2	15.1		E			4		5			0	0		Kuntz.
Tunis			29.96	760 9	67.1	19.5	50	ESE			3		6			0	0		Jacques.
Sfax			30.21	767.2				E			4		6			0	0		Chauvey.
Saïda			30.00	762.0	72.9	22.7		NW			4		6			0.039	1.0		Grosjean.
Tebessa			30.16	766.0	62.1	16.7		NW			2		8			0	0		Colin.
Geriville			29.96	761.0	66.2	19.0		SE			4		3			0	0		Bernadach.
Laghouat			30.00	762.1	66.2	19.0	30	SE			1		6			0	0		Poinsignon.
Biskra			30.10	764.5	68.2	20.1		E			2		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.11	764.9	55.6	13.1	41	SW			3		7			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.13	765.2	48.2	9.0	90	W			3		9			0	0		I. R. Observatory.
Eperies			30.07	763.8	47.8	8.8	42	Calm			0		6		S	0	0		Julius Mikolik.
Gratz			30.12	765.0	55.0	12.8	57	SW			2		2			0	0		Andreas Rospini.
Hermannstadt			30.04	763.0	43.5	6.4	66	E			1		10			0.014	0.35		Prof. Reissenberger.
Kremsmünster			30.09	764.3	50.2	10.1	51	E			2		0			0	0		Prof. C. Wagner.
Lemberg			30.09	764.4	38.5	3.6	44	N			2		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.10	764.5	50.0	10.0	48	N			3		5			0	0		Habzsuda Daniel.
Pola			30.14	765 6	56.5	13.6	48	W			1		18			0	0		I. R. Hydrographic Office
Szegedin			29.83	757.6	52.9	11.6	40	SE			1		8			0	0		Karl Stancel.
Trieste			30.15	765.8	55.0	12.8	55	Calm			0		0			0	0		Prof. V. Farolfi.
Vienna			30.13	765.2	49.6	9.8	45	NNW			1		8			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.89	759.2			59.4	15.2	47	E			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.09	764.3	57.5	14.2		SE	11	4.9			2			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.07	763.8	60.0	15.6		SE	17	7.6			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.06	763.5	63.8	17.7		ESE			2		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.00	762.0	64.2	17.9		SE			1		0						J. Dreyer, for L'd Rosse
Bradford			30.00	762.0	82.0	27.8		NE			2		3						J. Mc. Landsborough.
Bridgetown, (Barbadoes)																			T. H Hunt.
Bywell																			
Cambridge Observatory			30.11	764.8	60.0	15.6		ESE			1		0						H. Todd.
Cape Town, (Cape Colony)			29.97	761.2	65.0	18.3		W			2		9						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.99	761.7			68.0	20.0	61	Calm			0		9						The Staff, for E. J. Stone
Cardington			30.11	764.8	63.0	17.2		SE					1						John McLaren.
Carlisle			30.07	763.8	62.1	16.7		N					6			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.11	764.8	54.0	12.2		NE			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.83	757.7	78.6	25.9		SW			2		9					Drizzling	Sgt. W. F. Hopkins
Dartmoor			30.13	765.3	52.0	11.1		E			5		0						R. E. Power.
Donaghadee			30.07	763.8	56	13.3		S			2		0						J. Mac Gowan, Jr.
Dover			30.10	764.5	51	10.6		ENE			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.07	763.8	67.3	19.6		S	0.2	0.5			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.03	762.7	51.1	10.6		E	25	11.2			0					Haze	The Staff.
Fort Napier, (Natal)			29.80	756.9	82.5	28.1		E			1		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			29.90	759.4	68	20.0		SE			1		1						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.05	763.3	62.2	16.8		NE			3		10					H'vy levanter	Sergt. E. G. Baker.
Glasgow Observatory			30.06	763.5	61.8	16.6		SW			1		3						James Gray.
Great Yarmouth			30.14	765.5	48	8.9		Calm			0		0					Haze	G. T. Watson.
Greenwich Royal Obs.			30.10	764.5	60.1	15.6		E			1		0						The Staff, for G. B. Airy.
Guernsey			30.00	762.0	54	12.2		NE			2		0						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.03	762.7	64.0	17.8		ESE					0					Haze	F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.59	751.6	32.4	0.2		N			2		10					Snow	Corp'l J. Y. Thompson.
Helston			29.98	761.5	57	13.9		E			4		0						Dr. W. B. Moyle.
Holyhead			30.08	764.0	56	13.3		NNW			1		0						John Tilston.
Hull Park																			
Kew Observatory			30.10	764.5	58.5	14.7		E	10	4.5			0					Mist	The Staff.
Kingstown			30.07	763.8	54	12.2		SSE			3		1						George Mitchell.
Lampeter																			
Leicester Museum			30.12	765.0	60.4	15.8		Calm			0		2						William J. Harrison
Llandudno			30.04	763.0	63.4	17.4		ESE					0						Dr. James Nicol.
Malta, (Mediterranean)			30.09	764.3	57.8	14.3		NE			1		4k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.05	763.3	65	18.3		E			1		0						William D. Penny.
Nassau, (Bahamas)			30.10	764.5	72.1	22.3		W			5		6						Surg.-Maj. J. Jameson.
North Shields																			John Wm. Irvine.
Nottingham			30.11	764.8	64.2	17.9		SSW			2	3c		SW					E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.08	764.0	63.2	17.3		ESE				1c							Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.06	763.5	59	15.0		ENE			1		0					Haze	J. Lucas, for R. Main.
Plymouth			30.02	762.5	57	13.9		E			5		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.98	761.5	54	12.2		SE			5		10					Haze	W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			29.99	761.7	64.6	18.1		E			4		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.05	763.3	51.5	10.8		W	20	8.9			0						Rev. C. Clouston.
Scarborough																		Fog	F. Shaw.
Scutari, (Turkey)			30.05	763.3	51.0	10.6		NE			2		6						Sergt. W. H. Lyne.
Sheffield			30.08	764.0	62.0	16.7		SSE			1		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.08	764.0	65.8	18.8		W			1		2			0	0	Haze	Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	57.3	14.1		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.05?	763.3?				S			1							Haze	The Staff.
Stornoway, Lewis C. (Hebr.)			30.03	762.7	58	14.4		S-E			1							Haze	John Smith.
Strathfield Turgiss			30.09	764.3	64.6	18.1		SE			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.08	764.0	65.5	18.6		SSE			1		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.98	761.5	51	10.6		NW			5		10						William Lawrence.
Taunton College																			
Thurso			30.06	763.5	55	12.8		N			1		6					Mist	John Trotter.
Truro, Royal Institution			29.98	761.5	62	16.7		E			7		6						W Newcombe.
Valencia Observatory			29.89	759.2	62.2	16.8		SE	32	14.3									The Staff.
Wick																			
Wisbeach																			
Worthing																			William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.01	762.2	44.6	7.0	74	W			2		10						
Fanöe			30.10	764.5	43.2	6.2	88	W			4		10						
Godthaab, (Greenland)			29.97	761.2	32.4	0.2		NE			2		10					Mist	
Stykkisholm, (Iceland)			29.84	757.8	37.4	3.0	87	E			4		10						
Thorshavn, (Faröe)			30.01	762.2	47.5	8.6	86	S			4		10						
Vestervig			29.98	761.4	40.6	4.8	97	W			6		10					Mist	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.5	61.7	16.5	58						8c						Normal School.
Alençon																			Normal School.
Amiens			30.07	763.7	74.5	23.6	65	NE			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.07	763.6	73.6	23.1	24	SE			3		0			0	0		Normal School.
Besançon			30.07	763.6	61.5	16.4	38	ENE			5		2		NE	0	0		Normal School.
Bourges			30.01	762.2	63.7	17.6	45	NE			8		0			0	0		Normal School.
Brest			29.86	758.5	69.6	20.9	45	ESE			2		0			0	0		Naval Observatory.
Caen			30.02	762.5	66.6	19.2	67	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			29.98	761.5	68.0	20.0		E			3		0			0	0		Normal School.
Chaumont			30.03	762.8	64.6	18.1		ESE			2		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			29.99	761.7	56.8	13.8	28	ESE			2		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.04	762.9	64.4	18.0		E			1		0			0	0	Mist	National Observatory.
Parthenay			29.91	759.7	61.2	16.2	54	NE			2		0			0	0		Normal School.
La Roche sur Yon			29.96	760.0	70.5	21.4	37	E			5		0			0	0		Normal School.
Rouen			30.02	762.6	69.4	20.8	31	SE			3		0			0	0		Normal School.
Saint Lo			30.02	762.5	65.8	18.8	25	ESE			2		1		E	0	0		Normal School.
Villefranche			30.10	764.5	63.1	17.3	80	SSW			1		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.78	629.3			47.7	8.7	66	SSW	20.5	9.17			8		SW	0	0		—. Falguère.
Montsouris (near Paris)			30.03	762.7	67.1	19.5	23	SE	1.6	0.73			0			0	0		Marié Davy.
Perpignan	29.89	759.2			60.4	15.8	55	SE	13.0	5.83			3			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.97	761.3	66.9	19.4	28	SE			2		0			0	0		C. Marquet.
Versailles, (near Paris)			30.03	762.7	67.3	19.6	21	E					0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.03	763.9	63.9	13.5	83	SSE	4.7	2.1	3		0			0	0		H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.14	765.5	52.2	11.2	44	NE			2		2			0	0		Prof. Hoh.
Berlin			30.20	767.1	54.5	12.5	42	S			1		8			0	0		Prof. Arndt.
Breslau			30.17	766.4	51.1	10.6	43	NW			2		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.07	763.6	60.8	16.0	26	NE			2		0			0	0		A. Senz.
Cassel			30.05	763.2	6 .7	16.5	60	SSW			3		0			0	0		Dr. H. Möhl.
Cologne			30.10	764.6	59.9	15.5	46	SE			4		0			0	0		Dr. Garthe.
Emden			30.14	765.5	57.9	14.4	46	WSW			1		0			0	0		Prof. Prestel.
Frankfort on the Main			30.21	767.3	59.7	15.4	31	ENE			1		2			0	0		Physical Society.
Friedrichshafen			30.11	764.8	50.9	10.5	57	W					0			0	0		M. Wilhelm.
Hamburg			30.17	766.3	54.9	12.5	60	SW			3		5			0	0		W. Reinert.
Kiel			30.11	764.8	55.2	12.9	50	WNW			4		10			0	0		Prof. G. Karsten.
Königsberg			30.13	765.2	41.0	5.0	46	SW			2		0			0	0		Prof. E. Luther.
Köslin			30.27	768.8	50.9	10.5		NW			4		8			0	0		Dr. T gert.
Leipsic			30.27	768.9	52.7	11.5	65	SW			2		7			0	0		Prof. Bruhns.
Münster			30.08	764.0	60.6	15.9	55	SW			2		0			0	0		Prof. E. Heis.
Posen			30.13	765.6	51.8	11.0	43	NW			5		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.09	764.2	60.8	15.9	24	Calm			0		0			0	0		Hartwig and Tülk.
Stuttgart			30.11	764.8	59.0	15.0	34	E					0			0	0		Mr. Würth.
Thorn			30.11	764.8	50.0	10.0	47	W			2		8			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.03	762.8	61.9	16.6	25	NE			3		0			0	0		Prof. Flesch.
Wustrow			30.12	765.0	48.4	9.1	67	W			2		10			0	0		E. F. [illegible]chütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.12	765.1	59.4	15.2	45	ESE	1.3	0.6			2			0	0		
Mondovi			30.13	765.3	54.7	12.6	45	W			1		5	SW		0	0		
Genoa			30.32	770.0	57.6	14.2	46	S	4.9	2.2			0			0	0		
Pavia			30.12	765.0	59.2	15.1	43	SW			1		0			0	0		
Verona			30.11	764.8	61.7	16.5	37	W			1		0			0	0		
Padua			30.11	764.8	57.7	14.3	38	S	5.6	2.5			3			0	0		
Parma																			
Bologna			30.16	766.1	58.6	14.8	20	SSE			6		0			0	0		
Livorno			30.15	765.7	56.3	13.5	43	W	6.9	3.1			0			0	0		
Urbino			30.13	765.4	49.1	9.5	49	NE			2		1			0	0		
Ancona			30.15	765.9	5[illegible].4	13.0	68	ENE			2		0			0	0		
Siena			30.11	764.7	56.8	13.8	30	E-E	3.8	1.7			2	E		0	0		
Rome			30.13	765.2	61.3	16.3	46	SW	3.1	1.4			3	E		0	0		
Naples, O.U.			30.13	765.4	59.0	15.0	40	NE			1		6	NE		0	0		
Lecce			30.10	764.6	55.2	12.9	47	NNW	17.4	7.8			9			0	0		
Cosenza			30.11	764.9	57.4	14.1	56	NNW			2		5	NNW		0	0		
Catania, (Sicily)			30.14	765.6	58.5	14.7	65	SE			2		2	NW		0	0		
Liposto																			
Palermo			30.04	763.0	58.1	14.5	51	NE			2		5			0	0		
Sub-Series.																			
Naples, S. R.	29.61	752.0			59.4	15.2	44	E			4		[illegible]c		SE	0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.13	765.2	56.5	13.6		S			2								
Groningen			30.05	763.3	56.1	13.4		WNW			1								
Helder			30.11	764.9	50.1	10.0		NW			1								
Utrecht			30.07	763.6	61.9	16.6	46	NNE			2		0						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.93	760.2	42.8	6.0	91	SE	8.1	3.6			10			0.402	10.2	Fog & rain	
Christiania			29.79	756.6	44.2	6.8	84	WSW	0.2	0.1			10			0	0	Fog	
Tromsö			29.70	754.4	33.8	1.0	96	E			2		2			0.150	4.0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.52	749.8			62.6	17.0	77	SW	12.5	5.6			5						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			30.13	765.4	42.4	5.8	41	S	4	2			1						Astronomical Obs.
Wilna			30.15	765.7	37.9	3.3	42	N	4	2			6						Astronomical Obs.
Dorpat			30.01	762.2	30.0	— 1.1	76	SW	13	6			10					Snow	Physical Cabinet.
St. Petersburg			29.91	759.7	33.3	0.7	68	SW	13	6			10						Central Physical Obs.
Kieff			30.08	763.8	29.5	— 1.4	78	N	16	7			8						Physical Cabinet.
Nikolaiev			30.06	763.5	37.4	3.0	47	NNW	17	7.5			7						
Kertch			29.93	760.3	48.7	9.3	57	NNW	8	3.5			7						Lagorio.
Moscow			30.07	763.6	35.6	2.0	45	NW	10	4.5			7						Meteorological Obs.
Lugan			29.75	755.7	39.7	4.3	49	WNW	13	6			10					Snow	Meteorological Obs.
Archangel			29.82	757.3	32.0	0	74	WNW	8	3.5			2						Ogorodnikof.
Tiflis			29.71	754.5	60.3	15.7	43	NW	20	9			8						Physical Obs.
Astrakhan			29.78	756.4	59.5	15.3	42	SE	4	2			8					Rain	Sebastianof.
Kasan			30.08	764.0	36.0	2.2	65	E	4	2			6						Physical Cabinet.
Orenburg			29.89	759.2	41.2	5.1	98	E	4	2			10						Tschernischef.
Ekaterinburg			30.10	764.6	35.7	2.0	85	Calm	0	0			1						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.97	761.2	51.3	10.7	43	Calm	0	0			2						Meteorological Obs.
Yeniseisk			29.85	758.1	42.8	6.0	61	SW	13	6			10						Parks.
Irkutsk																			Usolzef.
Oorga			30.04	763.1	25.5	— 3.6	89	NW	8	3.5			5						Mossin.
Peking, (China)			30.08	764.1	52.9	11.6	40	SE	10	4.5			6						Physical Observatory.
Nertchinsk			29.88	759.0	32.9	0.5	73	Calm	0	0			10						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.96	761.0	54.1	12.3	71	SW	8.3	3.7			10			0.020	0.5	Rain	Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.68	753.9	41.4	5.2	78	SSW			2		10			0	0		
Hernosand			29.65	753.2	41.7	5.4	63	SSW			3		8			0	0		
Stockholm			29.75	755.7	43.2	6.2	67	SW			2		10			0	0	Fog	
Wisby			29.92	759.9	38.1	3.4	93	SW			2		10			0.01	0.2		
Sub-Series.																			
Upsala			29.76	756.0	40.8	4.6	86	WNW			1		10		SW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.66	727.9			54.3	12.4	87	NNW			2		1			0	0		The Observatory.
Zurich	28.41	721.7			59.7	15.4	40	NE			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.6mm.; Thermometer, +0°.2 C.; Relative Humidity, −20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			30.04	763.1	48.6	9.2	59	NE	12.[illegible]	[illegible].5			8		NE	0	0		
Fao, (Persian Gulf)			29.91	759.8	78.8	26.0		SW			3		2						
Salonica			29.96	761.0	60.4	15.8		S			1		10						
Valona			29.96	761.0	60.4	15.8		NE			2		10						
Varna			30.04	763.0	48.2	9.0		N			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.95	760.7	25	− 3.9		SW	4	1.8		0	0			0	0		
Chatham, N. B.			29.61	752.1	34	1.1	97	SW	1	0.4			10s			0.90	22.9		
Charlottetown, P. E. Island			29.58	751.3	36	2.2	95	SW	3	1.3			10n			0.72	18.3	Fog, Lt. rain	
Fort Garry, Manitoba			30.15	765.8	31	− 0.6	89	N	8	3.6		2ck	2ks	NW	NW	0	0		
Halifax, N. S.			29.50	749.3	33	0.6	91	NW	10	4.5			10n			1.70	43.2	Light rain	
Kingston, Ontario			29.93	760.2	20	− 6.7	90	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.84	757.7	26	− 3.3		SW	15	6.7		0	2s			0	0		
Ottawa, Ontario			29.89	759.2	21	− 6.1	61	SW	6	2.7		8k	0	S		0	0		
Parry Sound, Ontario			29.95	760.7	12	−11.1	66	W	3	1.3		2k	2ks	W	W	0	0		
Port Dover, Ontario			29.97	761.2	18	−10.6	81	NW	9	4.0		0	0			0	0		
Port Stanley, Ontario			29.98	761.5	11	−11.7	72	NW	3	1.3		2k	0	NW		0.02	0.5		
Quebec, Quebec			29.77	756.1	23	− 5.0	73	SW	6	2.7		0	0			0.20	5.1		
Saugeen, Ontario			29.92	760.0	14	−10.0	91	S	1	0.4		2k	0			0.05	1.3		
Stayner, Ontario																			
Sydney, C. B.			29.70	754.4	37	2.8	98	SE	19	8.5			10n			0.50	12.7	Threatening	
Toronto, Ontario			29.96	761.0	15	− 9.4	65	W	8	3.6		5cs	5ks	SW	SW	0.01	0.3		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.83	757.7	25	— 3.9	87	NW	12	5.4			10n			0	0	Light snow.	
Alpena, Mich.			29.96	761.0	13	—10.6	62	NW	4	1.8		5c	0	NE		0.01	0.3		
Atlantic City, N. J.			29.81	757.2	34	1.1	79	Calm	0	0		2k	Haze			0	0		
Augusta, Ga.			30.03	762.7	40	4.4	31	NW	10	4.5		0	0			0	0		
Baltimore, Md.			29.84	757.9	29	— 1.7	59	N	11	4.9		5c	Haze			0	0		
Barnegat, N. J.			29.81	757.2	31	— 0.6	79	W	2	0.9		0	0			0	0		
Benton, Montana			30.06	763.5	53	11.7	48	SW	12	5.4		5k	0	N		0	0		
Bismarck, Dakota			29.92	760.0	40	4.4	56	SE	2	0.9		1c	0			0	0		
Boston, Mass.			29.74	755.4	31	— 0.6	60	NE	5	2.2		5c	2s	S		0	0		
Breckenridge, Minn.			30.07	763.8	34	1.1	80	NW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.92	760.0	16	— 8.9	66	NW	4	1.8		0	8ks		NW	0.02	0.5		
Burlington, Vt.			29.83	757.7	25	— 3.9	75	N	4	1.8		0	5s			0.01	0.3		
Cairo, Ill.			30.17	766.3	35	1.7	69	Calm	0	0		0	0			0	0		
Cape Hatteras, N. C.			29.78	756.4	35	1.7	80	N	26	11.6			10s		W	0.20	5.1		
Cape Henry, Va.			29.81	757.2	32	0.0	90	N	12	5.4			10s		NW	0	0		
Cape May, N. J.			29.81	757.2	33	0.6	80	Calm	0	0			10ks		W	0	0		
Charleston, S. C.			30.09	762.0	43	6.1	30	NW	12	5.4		0	Haze			0	0		
Cheyenne, W. T.			30.10	764.5	38	3.3	45	W	8	3.6		0	0			0	0		
Chicago, Ill.			29.97	761.2	30	— 1.1	78	N	20	8.9			8ks		NW	0.02	0.5		
Cincinnati, Ohio			30.08	764.0	22	— 5.6	72	W	8	3.6			10n			0.03	0.8	Light snow.	
Cleveland, Ohio			29.94	760.5	18	— 7.8	76	N	8	3.6			10ks		W	0.29	7.4		
Colorado Springs, Col.			30.09	764.3	44	6.7	30	N	8	3.6		0	0			0	0		
Corsicana, Texas			30.14	765.5	58	14.4	87	S	6	2.7		5k	0	S		0	0		
Davenport, Iowa			30.08	764.0	31	— 0.6	79	NW	8	3.6		0	Sm'e			0	0		
Denver, Col.			30.15	765.8	42	5.6	42	S	6	2.7		0	0			0	0		
Detroit, Mich.			29.99	761.7	13	—10.6	62	NW	6	2.7		0	0			0.01	0.3		
Dodge City, Kansas			29.80	756.9	52	11.1	60	SE	4	1.8		0	0			0	0		
Dubuque, Iowa			30.05	763.3	31	— 0.6	68	NE	4	1.8		0	Haze			0	0		
Duluth, Minn.			30.01	762.2	32	0.0	60	SW	8	3.6		5k	5ks	W	W	0	0		
Eastport, Me.			29.64	752.8	32	0.0	70	NW			2	5c	0	S		0.41	10.4		
Erie, Penn.			29.92	760.0	18	— 7.8	84	W	12	5.4		0	9ks		W	0.05	1.3		
Escanaba, Mich.			29.85	758.2	21	— 6.1	78	N	4	1.8			10n			0.09	2.3	Threatening	
Fort Gibson, I. T.			30.15	765.8	48	8.9	62	E	4	1.8		0	0			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.05	763.3	35	1.7	70	Calm	0	0		0	0			0	0		
Galveston, Texas			30.19	766.8	64	17.8	88	S	2	0.9		0	Fog			0	0		
Grand Haven, Mich.			29.99	761.7	23	— 5.0	73	E	4	1.8		2ck	2s	NE	NE	0	0		
Indianapolis, Ind.			30.01	762.2	23	— 5.0	86	SW	1	0.4		2ck	2s	W		0.04	1.0		
Indianola, Texas			30.19	766.8	68	20.0	90	Calm	0	0		2c	0	W		0	0		
Jacksonville, Fla.			30.11	764.8	56	13.3	26	NW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.09	764.3	33	0.6	61	NW	6	2.7		0	0			0	0		
Key West, Fla.			30.17	766.3	70.9	21.6	57	NW	19	8.5		Haze	Haze			0	0		
Kittyhawk, N. C.			29.79	756.7	30	— 1.1	89	N	24	10.7			10n			0	0	Heavy snow	
Knoxville, Tenn.			30.13	765.3	26	— 3.3	76	W	12	5.4		2k	0	NW		0	0		
La Crosse, Wis.			30.03	762.7	31	— 0.6	68	NE	4	1.8		0	0			0	0		
Leavenworth, Kan.			30.19	766.8	34	1.1	61	Calm	0	0		0	Fog			0	0		
Lexington, Ky.			30.05	763.3	20	— 6.7	70	SW	10	4.5			10n			0.04	1.0	Light snow.	
Long Branch, N. J.			29.83	757.7	34	1.1	79	NW	3	1.3		0	0			0	0		
Louisville, Ky.			30.09	764.3	23	— 5.0	73	S			2		10n		W	0.04	1.0	Light snow.	
Lynchburg, Va.			29.90	761.0	28	— 2.2	64	NW	12	5.4		2k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			29.94	760.5	25	— 3.9	75	Calm	0	0			10s			0.04	1.0		
Memphis, Tenn.			30.20	767.1	45	7.2	53	Calm	0	0		0	0			0	0		
Milwaukee, Wisconsin			30.02	762.5	26	3.3	76	NE	12	5.4			9ks		NE	0.03	0.8		
Mobile, Ala.			30.19	766.8	50	10.0	64	N	6	2.7		0	Haze			0	0		
Montgomery, Ala.			30.19	766.8	44.5	6.9	56	NW	4	1.8		0	Haze			0	0		
Morgantown, W. Virginia			29.94	760.5	20	— 6.7	70	NW	15	6.7		Haze	8ks			0.01	0.3		
Mt. Washington, N.			29.60	751.8	4	—15.6	74	NW	6	2.7		2c	0	NW		0	0		
Nashville, Tenn.			30.18	766.6	33	0.6	52	NW	3	1.3		0	0			0	0		
New Haven, Conn.			29.80	756.9	30	— 1.1	68	N	4	1.8		5cs	0	NW		0	0		
New London, Conn.			29.80	756.9	34	1.1	71	N	3	1.3		8c	0	W		0	0		
New Orleans, La.			30.20	767.1	58	14.4	76	W	1	0.4		0	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			29.83	757.7	28	— 2.2	56	NW	7	3.1		0	0			0	0		
Norfolk, Va.			29.82	757.4	33	0.6	89	NE	10	4.5			10s		W	0.02	0.5		
North Platte, Neb.			29.76	755.9	46	7.8	68	SW	3	1.3		0	0			0	0		
Omaha, Neb.			30.15	765.8	38	3.3	70	Calm	0	0		0	Sm'e			0	0		
Oswego, N. Y.			29.90	759.4	25	— 3.9	82	W	1	0.4		Haze	8ks			0	0		
Peck's Beach			29.82	757.4	30	— 1.1	78	N	3	1.3			10s			0	0		
Pembina, D. T.			30.07	763.8	34	1.1	84	NE	12	5.4		2c	0			0	0		
Philadelphia, Penn.			29.82	757.4	30	— 1.1	68	E	4	1.8		2k	Haze			0	0		
Pike's Peak, C. T.			30.09	764.3	17	— 8.3	58	W	16	7.2		0	0			0	0		
Pittsburgh, Penn.			29.94	760.5	17	— 8.3	83	W	10	4.5		2k	0	NW		0.02	0.5		
Port Huron, Mich.			29.97	761.2	12	—11.1	80	W	9	4.0		0	0			0.07	1.8		
Portland, Maine			29.77	756.1	30	— 1.1	57	N	8	3.6		1cs	0	SW		0	0		
Portland, Or.			30.24	768.1	44	6.7	92	Calm	0	0		0	Fog			0	0	Fog.	
Punta Rassa, Fla.			30.16	766.1	65.0	18.3	52	N	8	3.6		8ck	Sm'e	NW		0	0		
Rochester, N. Y.			29.89	759.2	21	— 6.1	85	W	8	3.6		Haze	2s			0	0		
Salt Lake City, Utah			30.11	764.8	48	8.9	56	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.81	757.2	29	— 1.7	77	NW	9	4.0		2c	Haze	SW		0			
San Diego, Cal.			30.11	764.8	54	12.2	86	SE	4	1.8			10s			0	0		
San Francisco, Cal.			30.17	766.3	49	9.4	85	W	8	3.6			10s			0	0		
Santa Fe, N. M.			29.83	757.7	50	10.0	32	NW	6	2.7		5c	0	SW		0	0		
Savannah, Georgia			30.04	763.0	47	8.3	19	W	14	6.3		0	0			0	0		
Shreveport, La.			30.20	767.1	53	11.7	79	Calm	0	0		0	Sm'e			0			
Springfield, Mass.			29.78	756.4	35.5	— 0.8	59	N	8	3.6		5k	0	W		0			
St. Louis, Mo.			30.13	765.3	34	1.1	73	NW	2	0.9		0	0			0	0		
St. Marks, Fla.			30.16	766.1	45	7.2	75	NW	4	1.8		0	0			0	0		
St. Paul, Minn.			30.03	762.7	29	— 1.7	77	W	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			30.52	775.2	31	— 0.6	68	ESE	13	5.8		0	10ks			0	0		
Squan Beach, N. J.			29.83	757.7	29	— 1.7	67	NE	4	1.8		0	Haze			0	0		
Toledo, Ohio			30.03	762.7	19	— 7.2	53	NW	4	1.8		0	0			0.05	1.3		
Tybee Island, Ga.			30.06	763.5	50	10.0	27	W	20	8.9		0	0			0	0		
Vicksburg, Miss.			30.27	768.8	52	11.1	43	E	1	0.4		0	Sm'e			0	0		
Virginia City, Mon.			29.88	758.9	42	5.6	66	Calm	0	0		0	0			0	0		
Washington, D. C.			29.85	758.2	26.5	— 3.1	48	NW	11	4.9		5c	0			0	0		
Wilmington, N. C.			29.92	760.0	36	2.2	53	W	13	5.8		5k	0	NW		0	0		
Wood's Hole, Mass.			29.78	756.4	33	0.6	60	NW	3	1.3			10s			0	0		
Wytheville, Va.			29.76	755.9	15	— 9.4	82	NW	11	4.9		Haze	0	W		0.01	0.3		
Yankton, D. T.			30.16	766.1	34	1.1	79	Calm	0	0		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.08	764.0	80	26.7		E	4	1.8		5c	2ks	E		0	0		E. Racker.
Pointe-A Pitre, G'd'loupe, do			30.00	762.0	74	23.3		E				1c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.92	760.0	75	23.9	81	NW	6.0	2.7		5fk	0	NW		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	76	24.4		Calm	0	0		0	0			0.02	0.5		James Gall.
St. Thomas, St. T., W. I.	30.30	769.6			76	24.4		S	4	1.8		2ck	5k	S		0.01	0.3		W. S. Cameron.
Santiago de Cuba, W. I.			29.93	760.2	77	25.0	61	N	6.0	2.7		3ck	0	N		0	0		Robert Mason.
St. Georges, Bermudas			29.82	757.4	68.5	20.3	85	SW	6.8	3.0		5ck	5k	SW		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.06	763.5	60	15.6	66	Calm			0	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.88	758.9	60	15.6	94	S	6	2.7		2c	9	S	S	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.98	761.5	— 0.5	—18.1	84	NW	29	13.0		2c	0	N		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	65	18.3	90	NW	3.0	1.3			10k			1.35	34.3		C. Partridge.
St. John's, Newfoundland			30.29	769.4	38	3.3	100	NE				Haze	Haze			0.20	5.1		John Delaney.
St. John's, Porto Rico, W. I			30.09	764.4	81.0	27.2	64	SW			1	0	0			0	0		Leon M. Acuña.
Elyria, Ohio.			29.97	761.2	15	— 9.4	82	NW	6	2.7			10n			0.65	16.5		H. M. Redington.
Indianola, Iowa	29.28	743.7			39	3.9		NW				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 19, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.03	762.7	61.7	16.5		NE			4		6			0	0		Charnot.
Algiers			30.10	764.6	62.6	17.0	85	NNW			2		9			0	0		Peter.
La Calle			30.23	767.8	61.3	16.3		SW			3		7			0	0		Kuntz.
Tunis			30.26	768.7	63.3	17.4	61	SE			3		8			0.008	0.2		Jacques.
Sfax			30.23	767.9	64.6	18.1		ENE			4		3			0	0		Chauvey.
Saïda			30.02	762.4	63.3	17.4		N			1		2			0	0		Grosjean.
Tebessa			30.17	766.4	63.1	17.3		NE			2		9			0	0		Colin.
Gerlville			29.97	761.3	68.4	20.2		NE			2		3			0	0		Bernadach.
Laghouat			30.01	762.3	70.2	21.2	26	E			3		8			0	0		Poinsignon.
Biskra			30.11	764.7	77.2	25.1		E			2		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.03	762.8	59.0	15.0	38	SW			2		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.94	760.5	46.4	8.0	86	W			3		10			0.020	0.5		I. R. Observatory.
Eperies			29.91	759.8	50.9	10.5	56	Calm			0		10			0	0	Rain	Julius Mikolik.
Gratz			29.98	761.4	59.5	15.3	47	SW			5		2			0	0		Andreas Rospini.
Hermannstadt			29.97	761.2	50.7	10.4	39	WNW			4		5			0	0		Prof. Reissenberger.
Kremsmünster			30.00	762.1	57.6	14.2	38	W			3		5			0	0		Prof. C. Wagner.
Lemberg			29.86	758.5	49.6	9.8	57	NW			6		8			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.96	761.0	52.0	11.3	48	SW			1		9			0	0		Habzsuda Daniel.
Pola			30.13	765.4	55.6	13.1	61	WSW			1		10s			0	0		I. R. Hydrographic Office
Szegedin			30.02	762.6	54.3	12.4	50	NW			2		10			0	0		Karl Stancel.
Trieste			30.13	765.4	54.7	12.6	68	Calm			0		10			0	0		Prof. V. Farolfi.
Vienna			29.91	759.7	61.0	16.1	28	W			4		10			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.96	760.9			60.3	15.7	50	ENE			2		2			0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.09	764.3	63.0	17.2		SE	11	4.9			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.12	765.0	64	17.8		W			1		0					Fog	William McNeil.
Armagh Observatory			30.11	764.8	62.4	16.9		SSE	18	8.0			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.11	764.8	65.0	18.3		SE			1		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.04	763.0	68.4	20.2		SSE			1–2		0						J. Dreyer, for L'd Rosse.
Bradford			30.11	764.8	61.0	16.1		E			1		0						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	80.0	26.7		NE			2		8						T. H Hunt.
Bywell																			
Cambridge Observatory			30.16	766.1	61.0	16.1		E			1		7					Haze	H. Todd.
Cape Town, (Cape Colony)			30.02	762.5	69.2	20.7		SE			5		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.05	763.3			70.0	21.1	65	SE	19	8.5			2						Th Staff, for E. J. Stone
Cardington			30.17	766.3	66.0	18.9		SE					1						John McLaren.
Carlisle			30.05	763.3	62.0	16.7		Calm					0			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.16	766.1	55.7	13.2		NE			2		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.83	757.7	77.0	25.0		SE			2		10					Rain	Sgt. W. F. Hopkins
Dartmoor			30.17	766.3	60.0	15.6		E			4		0						R. E. Power.
Donaghadee			30.11	764.8	57	13.9		SE			3		0						J. Mac Gowan, Jr.
Dover			30.15	765.8	53	11.7		NE			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.10	764.5	72.0	22.2		SE	2.6	1.2			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.09	764.3	53.5	11.9		E	25	11.2			0					Haze	The Staff.
Fort Napier, (Natal)			29.80	756.9	73.5	23.1		E			3		8						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.95	760.7	70	21.1		SE			1		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.03	762.7	60.0	15.6		E			4		10						Sergt. E. G. Baker.
Glasgow Observatory			30.09	764.3	64.6	18.1		W			1		10					Mist	James Gray.
Great Yarmouth			30.19	766.8	49	9.4		ESE			1		0					Haze	G. T. Watson.
Greenwich Royal Obs.			30.16	766.1	66.9	19.4		E			1		0						The Staff, for G. B. Airy.
Guernsey			30.10	764.5	60.5	15.8		ENE			1		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.09	764.3	63.3	17.4		ESE					0					Haze	F. J. Rice, for L. J. Crossley.
Halifax, (Nova Scotia)			29.36	745.7	36.6	2.6		W			2		10						Corp'l J. Y. Thompson.
Helston			30.02	762.5	59	15.0		E			4		0						Dr. W. B. Mavle.
Holyhead			30.13	765.3	64	17.8		SSW			1		0						John Tilston.
Hull Park																			
Kew Observatory			30.14	765.5	63.8	17.7		ENE	10	4.5			0						The Staff.
Kingstown			30.12	765.0	54	12.2		ESE			3		0						George Mitchell.
Lampeter																			
Leicester Museum			30.17	766.3	63.8	17.7		SE			1		0						William J. Harrison
Llandudno			30.10	764.5	57.5	14.2		S					0						Dr. James Nicol.
Malta, (Mediterranean)			30.15	765.8	60.0	15.6		SE			1		4k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.07	763.8	70	21.1		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.18	766.6	70.5	21.4		W			3		6						Surg.-Maj. J. Jameson.
North Shields			30.16	766.1	54	12.2		SW			1		2						John Wm. Irvine.
Nottingham			30.18	766.6	65.7	18.7		SE			1		0					Haze	E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.12	765.0	68.5	20.3		SSE			2		0						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.12	765.0	66	18.9		S			1		0						J. Lucas, for R. Main.
Plymouth			30.08	764.0	64	17.8		E			2		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.02	762.5	56	13.3		SE			5		5						W. Kennedy.
Saint Ann's Head			30.06	763.0	57	13.9		ESE			2		0						John C. Walker.
Saint Helier, (Jersey)			30.08	764.0	70.8	21.6		SE			1		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.10	764.5	55.5	13.1		W	10	4.5			0						Rev. C. Clouston.
Scarborough			30.18	766.6	50.0	10.0		SSE			2		0						F. Shaw.
Scutari, (Turkey)			30.11	764.8	54.0	12.2		SW			1		3						Sergt. W. H. Lyne.
Sheffield			30.14	765.5	62.5	16.9		SE			2		2			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.12	765.0	67.8	19.9		N			1		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.20	767.1	59.4	15.2		ENE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.11	764.8	64.4	18.0		S			1							Haze	The Staff.
Stornoway, Lewis C. (Heb.)			30.06	763.5	61	16.1		SW			3							Fog	John Smith.
Strathfield Turgiss			30.12	765.0	70.3	21.3		SW			0–1		0						Rev Charles H. Griffith
Streatley Vicarage			30.15	765.8	73.0	22.8		SSE			5		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.07	763.8	50	10.0		Calm			0		10					Fog	William Lawrence.
Taunton College																			
Thurso			30.08	764.0	61	16.1		Calm			0		3					Mist	John Trotter.
Truro, Royal Institution			30.00	762.0	66	18.9		E			4		0						W Newcombe.
Valencia Observatory			29.94	760.5	62.4	16.9		SE	32	14.3			3						The Staff.
Wick																			
Wisbeach																			
Worthing			30.16	766.1	55.7	13.2		SE			1		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.96	760.9	48.9	9.4	79	Calm			0		3						
Fanöe			30.06	763.5	47.1	8.4	84	NW			6		6						
Godthaab, (Greenland)			29.85	758.1	39.9	4.4		E			2		2						
Stykkisholm, (Iceland)			29.88	758.9	37.8	3.2	97	E			6		10					Rain	
Thorshavn, (Faröe)			29.98	761.5	49.3	9.6	82	WSW			2		3					Mist	
Vestervig			30.01	762.1	48.9	9.4	86	NNW			4		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.10	764.5	64.0	17.8	80						1ck						Normal School.
Alençon																			Normal School.
Amiens			30.13	765.3	75.2	24.0	77	SE			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.14	765.5	64.0	18.3	28	SSE			1		0			0	0		Normal School.
Besançon			30.14	765.6	65.3	18.5	32	N			3		0			0	0		Normal School.
Bourges			30.12	765.1	65.1	18.4	40	SE			2		0			0	0		Normal School.
Brest			29.95	760.8	72.5	22.5	48	SSW			2		0			0	0		Naval Observatory.
Caen			30.07	763.7	67.6	19.8	40	NE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.09	764.2	68.0	20.0		S			2		0			0	0		Normal School.
Chaumont			30.13	765.3	65.7	18.7		WNW			1		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.09	764.4	62.1	16.7	35	NNE			2		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.28	769.1	68.4	20.2		SSE			1		0			0	0		National Observatory.
Parthenay			30.06	763.4	64.4	18.0	39	SE			2		0			0	0		Normal School.
La Roche sur Yon			30.07	763.8	70.5	21.4	40	E			2		0			0	0		Normal School.
Rouen			30.11	764.7	72.7	22.6	42	SSE			3		0			0	0		Normal School.
Saint Lo			30.14	765.5	68.5	20.3	21	SE			2		1		E	0	0		Normal School.
Villefranche			30.12	765.1	68.9	20.5	53	SSW			3		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.88	632.0			46.9	8.3	79	ESE	22.0	9.8			5		SSW	0	0		—. Falguère.
Montsouris (near Paris)			30.12	765.1	70.9	21.6	22	S	2.2	1.00			0			0	0		Marié Davy.
Perpignan	30.00	762.0			57.7	14.3	66	SE	13.0	5.83			1		S	0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.10	764.6	67.1	19.5	28	ESE			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.12	765.0	69.1	20.6	27	S			1		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.98	760.6	61.0	16.1	89	SE	5.8	2.6			10			0	0	Mist	H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.02	762.5	61.7	16.5	27	NW			5		3			0	0		Prof. Hoh.
Berlin			30.10	764.6	47.7	8.7	68	NW			1		9			0	0		Prof. Arndt.
Breslau			30.00	761.9	47.3	8.5	80	NW			4		10			0.024	0.6		Dr. P. Neugebauer.
Carlsruhe			30.09	764.2	67.6	19.8	26	SW			2		0			0	0		A. Senz.
Cassel			30.04	762.9	65.5	18.6	47	N			2		0			0	0		Dr. H. Möhl.
Cologne			30.14	765.5	58.3	14.6	52	NW			3		5			0	0		Dr. Garthe.
Emden			30.14	765.5	48.6	9.2	77	NNW			2		10			0	0		Prof. Prestel.
Frankfort on the Main			30.16	766.0	68.0	20.5	24	N			2		1			0	0		Physical Society.
Friedrichshafen			30.14	765.6	55.4	13.0	61	S					2			0	0		M. Wilhelm.
Hamburg			30.13	765.2	46.0	7.8	88	NW			4		10			0	0	Fog	W. Reinert.
Kiel			30.08	764.0	52.2	11.2	69	WNW			4		10			0	0		Prof. G. Karsten.
Königsberg			29.90	759.4	45.0	7.2	79	W			2		9			0.024	0.6		Prof. E. Luther.
Köslin			30.17	766.4	39.6	4.2		N			1		10			0.067	1.7		Dr. T gert.
Leipsic			30.07	763.8	51.6	10.9	64	NNW			4		4			0	0		Prof. Bruhns.
Münster			30.08	764.1	56.3	13.5	67	NW			2		0			0	0		Prof. E. Heis.
Posen			29.99	761.7	45.7	7.6	77	NW			2		10			0.063	1.6		Dr. Magener.
Strassburg, (in Alsace)			30.11	764.8	65.5	18.6	20	SE					0			0	0		Hartwig and Tölk.
Stuttgart			30.08	764.0	65.8	18.8	32	W					0			0	0		Mr. Würth.
Thorn			29.89	759.3	48.4	9.1	83	NW			4		9			0.165	4.2		Dr. n enbalg.
Treves, (Trier)			30.06	763.5	66.4	19.1	24	SW			4		0			0	0		Prof. Flesch.
Wustrow			30.06	763.4	45.3	7.4	82	W			2		10			0	0		E. F. chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.11	764.7	62.8	17.1	40	SE	2.5	1.1			1			0	0		
Mondovi			30.11	764.7	58.5	14.7	24	NW			2		0			0	0		
Genoa			30.18	766.6	59.2	15.1	50	S	3.1	1.4			0			0	0		
Pavia			30.10	764.6	64.4	18.0	30	SW			4		1		SW	0	0		
Verona			30.05	763.3	67.1	19.5	34	W			1		0			0	0		
Padua			30.08	764.1	59.4	15.2	49	NW	2.5	1.1			10		NW	0	0		
Parma																			
Bologna			30.09	764.4	61.9	16.6	19	W			4		4		S	0	0		
Livorno			30.19	766.7	59.4	15.2	58	WSW	5.6	2.5			4			0	0		
Urbino			30.10	764.6	56.3	13.5	54	SW			4		3			0	0		
Ancona			30.13	765.4	60.4	15.8	41	SSE			4		0			0	0		
Siena			30.14	765.5	59.0	15.0	33	NW	1.8	0.8			0		NE	0	0		
Rome			30.19	766.8	60.8	16.0	50	WSW	6.3	2.8			2			0	0		
Naples, O.U			30.19	766.8	63.1	17.3	41	WSW			4		5		NW	0	0		
Lecce			30.20	767.0	56.1	13.4	41	WNW	8.1	3.6			8			0	0		
Cosenza			30.19	766.7	57.7	14.3	57	NNW			1		6		WNW	0	0		
Catania, (Sicily)			30.19	766.8	60.3	1 .7	55	SE			2		2		E	0	0		
Riposto																			
Palermo			30.11	764.8	58.5	14.7	51	NE			2		4			0	0		
SUB-SERIES.																			
Naples, S. R.	29.67	753.5			61.0	16.1	50	WNW			4		-k		NW	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.21	767.2	55.8	13.2		NE			2								
Groningen			30.12	765.0	47.5	8.6		N			2								
Helder			30.19	766.9	45.3	7.4		NNE			2								
Utrecht			30.14	765.5	54.3	12.4	61	NNW			2		0						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.09	764.2	46.9	8.3	71	NNW	6.9	3.1			10			0	0		
Christiania			29.94	760.5	56.8	13.8	39	SSW	5.8	2.6			4			0	0		
Tromsö			29.75	755.7	34.5	1.4	96	SW			2		10			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.58	751.4			66.0	18.9	66	SW	15.0	6.7			5						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.89	759.1	44.8	7.1	84	W	4	2			10						Astronomical Obs.
Wilna			29.85	758.3	48.9	9.4	46	S	4	2			7						Astronomical Obs.
Dorpat			29.77	756.1	36.9	2.7	87	WSW	4	2			10						Physical Cabinet.
St. Petersburg			29.68	753.9	37.0	2.8	82	SSW	9	4			10					Snow & rain.	Central Physical Obs.
Kieff			30.00	762.0	40.8	4.9	48	NNW	4	2			4						Physical Cabinet.
Nikolaiev			30.06	763.4	44.8	7.1	40	NW	10	4.5			4						
Kertch			30.03	762.7	44.6	7.0	49	WNW	13	6			6						Lagorio.
Moscow			30.03	762.8	37.9	3.3	39	SW	8	3.5			0						Meteorological Obs.
Lugan			29.80	756.8	35.6	2.0	66	S W	17	7.5			9						Meteorological Obs.
Archangel			29.90	759.4	33.8	1.0	65	Calm	0	0			9						Ogorodnikof.
Tiflis			29.93	760.1	48.2	9.0	49	N	31	14			9						Physical Obs.
Astrakhan			30.01	762.2	34.9	1.6	93	WNW	4	2			10						Sebastianof.
Kasan			29.92	759.9	38.8	3.8	51	ENE	10	4.5			7						Physical Cabinet.
Orenburg			30.04	763.1	56.8	13.8	59	SE	10	4.5			10						Tschernischef.
Ekaterinburg			30.11	764.7	30.9	-0.6	81	SE	10	4.5			10					Snow	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.13	765.5	45.5	7.5	37	NNE	8	3.5			4						Meteorological Obs.
Yeniseisk			30.00	761.9	28.9	-1.7	54	NW	17	7.5			0						Marks.
Irkutsk																			Usolzef.
Oorga			30.14	765.5	34.3	1.3	72	Calm	0	0			0						Mossin.
Peking, (China)			29.91	759.6	56.7	13.7	40	alm	0	0			0						Physical Observatory
Nertchinsk			29.95	760.7	34.0	1.1	52	W	8	3.5			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.06	763.3	58.3	14.6	75	SE	7.4	3.3			10			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.77	756.2	38.1	3.4	44	N			2		2			0	0		
Hernosand			29.80	756.9	43.2	6.2	42	N			2		8			0	0		
Stockholm			29.83	757.6	47.5	8.6	47	N			3		8			0	0		
Wisby			29.86	758.5	39.9	4.4	84	NNW			2		0			0	0		
Sub-Series.																			
Upsala			29.84	758.0	46.0	7.8	71	WNW			2		7	NNW	NW				Dr. Hildebrandsson.

NOTE.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.72	729.6			60.4	15.8	33	NNW			2		0			0	0		The Observatory.
Zurich	28.43	722.2			64.8	18.2	30	W			1		1			0	0		The Observatory.

NOTE.—For Geneva the corresponding departures from the normal values are: Barometer, +5.3mm.; Thermometer, +3°.4 C.; Relative Humidity, —24 per cent.

NOTE.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.98	761.6	67.8	19.9	56	SW			2		5						
Constantinople			30.11	764.9	50.0	10.0	39	ENE	11	5			2		NE	0	0		
Fao, (Persian Gulf)			29.96	761.0	75.2	24.0		SE			4		10					Rain.	
Salonica			30.08	763.9	64.9	18.3		SW			1		0						
Valona			30.07	763.8	58.1	14.5		NW			2		2						
Varna			30.04	763.0	53.6	12.0		W			3		8						

NOTE.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

NOTE.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.81	757.2	25	—3.9		W	4	1.8			8s		W	0.03	0.8		
Chatham, N. B.			29.33	745.0	35	1.7	89	SW	3	1.3			8s			0.17	4.3		
Charlottetown, P. E. Island			29.33	745.0	35	1.7	91	S	7	3.1			10n			0.36	9.1		
Fort Garry, Manitoba			30.13	765.3	23	—5.0	93	NE	13	5.8		5k	5ks	N	N	0	0		
Halifax, N. S.			29.26	743.2	36	2.2	85	NW	3	1.3			10n			0.39	9.9		
Kingston, Ontario			29.82	757.4	25	—3.9	89	NW	13	5.8		5ck	0	W		0	0		
Montreal, Quebec			29.63	752.6	25	—3.9	69	SW	20	8.9		5k	5ks	N		0	0		
Ottawa, Ontario			29.73	755.1	24	—4.4	74	W	13	5.8		5k	5n	W	W	0	0	Light snow.	
Parry Sound, Ontario			29.87	758.7	24	—4.4	78	NW	6	2.7		5ck	5ks	NW	NW	0.02	0.5		
Port Dover, Ontario			29.94	760.5	27	—2.8	76	W	10	4.5		5ck	0	NW		0	0		
Port Stanley, Ontario			29.95	760.7	30	—1.1	91	W	15	6.7		Haze	0			0	0		
Quebec, Quebec			29.55	750.6	22	—5.6	72	W	22	9.8			10n		N	0	0		
Saugeen, Ontario			29.88	758.9	26	—3.3	88	W	2	0.9		2ks	0			0	0		
Stayner, Ontario			29.86	758.4	25	—3.9	75	NW	13	5.8			10n			Blank	Blank	Light snow.	
Sydney, C. B.			29.36	745.7	43	6.1	98	S	3	1.3			Fog			0.39	9.9		
Toronto, Ontario			29.91	759.7	27	—2.8	75	W	10	4.5		5ck	0	NW		0.03	0.8		

NOTE.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.75	755.6	29	— 1.7	78	W	20	8.9		5k	2s	W	W	0.01	0.3		
Alpena, Mich.			29.92	760.0	26	— 3.3	88	NW	3	1.3			10s		E	0.02	0.5		
Atlantic City, N. J.			29.94	760.4	27	— 2.8	64	NW	15	6.7		5c	0	NW		0	0		
Augusta, Ga.			30.20	767.1	40	4.4	64	E	1	0.4		0	0			0	0		
Baltimore, Md.			29.99	761.7	29	— 1.7	68	SW	7	3.1			10s			0.01	0.3		
Barnegat, N. J.			29.88	758.9	22	— 5.6	72	W	7	3.1		5cs	0	W		0	0		
Benton, Montana			30.01	762.2	46	7.8	76	SW	4	1.8			10s			0	0		
Bismarck, Dakota			29.74	755.4	35	1.7	70	NE	3	1.3		2k	0	NE		0	0		
Boston, Mass.			29.68	753.9	27	— 2.8	53	NW	14	6.3		0	0			0	0		
Breckenridge, Minn.			29.81	757.2	36	2.2	71	NE	8	3.6		5ks	0	NE		0	0		
Buffalo, N. Y.			29.90	759.4	24.5	— 4.2	69	W	8	3.6		2ck	2ks	NW	W	0.03	0.8		
Burlington, Vt.			29.68	753.9	22	— 5.6	72	S	6	2.7		0	2s			0	0		
Cairo, Ill.			30.10	764.5	47	8.3	62	S	4	1.8		Haze	Haze			0	0		
Cape Hatteras, N. C.			30.11	764.8	34	1.1	52	NW	16	7.2		0	0			0.01	0.3		
Cape Henry, Va.			30.06	763.5	36	2.2	61	W	16	7.2		0	0			0	0		
Cape May, N. J.			29.97	761.2	28	— 2.2	67	NW	16	7.2		5k	0	NW		0	0		
Charleston, S. C.			30.21	767.3	44	6.7	60	N	2	0.9		0	Sm'e			0	0		
Cheyenne, W. T.			30.02	762.5	41	5.0	48	NW	16	7.2		2c	0			0	0		
Chicago, Ill.			29.87	758.7	42	5.6	66	SW	4	1.8		8ck	0	S		0	0		
Cincinnati, Ohio			30.03	762.7	43	6.1	58	SW	4	1.8		0	0			0	0		
Cleveland, Ohio			29.96	761.0	30.8	0.7	79	SE	4	1.8		5ck	Sm'e	NW		0.01	0.3		
Colorado Springs, Col.			30.00	762.0	47	8.3	41	N	12	5.4		0	0			0	0		
Corsicana, Texas			30.08	764.0	62	16.7	88	S	6	2.7		8c	Haze			0	0		
Davenport, Iowa			29.89	759.2	43	6.1	75	SW	4	1.8		5k	5s	W	W	0	0		
Denver, Col.			30.08	764.0	40	4.4	48	S	4	1.8		0	0			0	0		
Detroit, Mich.			29.93	760.2	30	— 1.1	78	SW	5	2.2			10s			0	0		
Dodge City, Kansas			29.63	752.6	50	10.0	32	SW	8	3.6		2c	0			0	0		
Dubuque, Iowa			29.82	757.4	41	5.0	65	NW	4	1.8		2cs	Haze			0	0		
Duluth, Minn.			29.95	760.7	34	1.1	69	NE	18	8.0			10s			0	0		
Eastport, Me.			29.44	747.8	30	— 1.1	80	N	15	6.7		2c	0	S		0.03	0.8		
Erie, Penn.			29.92	760.0	31	— 0.6	89	W	12	5.4		5ck	2s	W		0	0		
Escanaba, Mich.			29.95	760.7	30	— 1.1	78	N	2	0.9			10s			0.13	3.3		
Fort Gibson, I. T.			29.93	760.2	63	17.2	46	E	8	3.6		8cs	Haze	W		0	0		
Fort St. Michael, Alaska																			
Fort Stilly, D. T.			29.72	754.9	53	11.7	54	W	2	0.9		5k	0	NW		0	0		
Galveston, Texas			30.12	765.5	68	20.0	84	SE	12	5.4		5ck	0			0	0		
Grand Haven, Mich.			29.92	760.0	30	— 1.1	68	Calm	0	0			10ks		N	0.01	0.3		
Indianapolis, Ind.			29.99	761.7	43	6.1	58	S	5	2.2		2ck	Sm'e	S		0	0		
Indianola, Texas			30.06	763.5	69	20.6	90	SE	6	2.7		5ck	0	SW		0	0		
Jacksonville, Fla.			30.22	767.6	55	12.8	43	Calm	0	0		0	0			0	0		
Keokuk, Iowa			29.90	759.4	50	10.0	51	W	12	5.4		5ck	2s	NW		0	0		
Key West, Fla.			30.21	767.3	68.4	20.2	61	NE	17	7.6		5k	Sm'e	NE		0	0		
Kittyhawk, N. C.			30.10	764.5	32	0.0	79	NW	15	6.7		0	0			0.05	1.3		
Knoxville, Tenn.			30.20	767.1	35	1.7	80	SW	4	1.8		0	Haze			0	0		
La Crosse, Wis.			29.79	756.7	40	4.4	73	S	4	1.8		0	Haze			0	0		
Leavenworth, Kan.			29.90	759.4	50	10.0	58	Calm	0	0		2c	5ks	NW	NW	0	0	Threatening	
Lexington, Ky.			30.08	764.0	39	3.9	73	SW	12	5.4		0	0			0	0		
Long Branch, N. J.			29.88	758.9	28	— 2.2	67	NW	24	10.7		2c	0	NW		0.02	0.5		
Louisville, Ky.			30.07	763.8	43	6.1	59	S			1	0	Sm'e			0	0		
Lynchburg, Va.			30.02	762.5	37	2.8	48	SW	2	0.9		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.98	761.5	30	— 1.1	78	NW	8	3.6			10s		NW	0	0		
Memphis, Tenn.			30.04	765.5	51	10.6	40	S	3	1.3		8cs	Sm'e			0	0		
Milwaukee, Wisconsin			29.90	759.4	32	0.0	89	Calm	0	0			Fog			0	0	Fog	
Mobile, Ala.			30.24	768.1	54	12.2	61	Calm	0	0		0	Haze			0	0		
Montgomery, Ala.			30.24	768.1	46	7.8	80	NW	1	0.4		2c	Sm'e			0	0		
Morgantown, W. Virginia			30.05	763.3	33	0.6	74	SW	10	4.5		10cs	2s	NW		0.01	0.3		
Mt. Washington, N. H.			29.44	747.8	— 3	—19.4	100	NW	20	8.9		C	5s		NW	0.15	3.8		
Nashville, Tenn.			30.16	766.1	41	5.0	74	Calm	0	0		0	Haze			0	0		
New Haven, Conn.			29.80	756.9	31	— 0.6	49	W	16	7.2		5c	0	NW		0	0		
New London, Conn.			29.77	756.1	29	— 1.7	61	W	13	5.8		2ck	0	NW		0	0		
New Orleans, La.			30.21	767.3	65	18.3	81	Calm	0	0		0	Fog			0	0		
Newport, R. I.																			
New York, N. Y.			29.88	758.9	25	— 3.9	63	W	12	5.4		8c	2s	W	W	0.02	0.5		
Norfolk, Va.			30.04	764.0	35	1.7	61	SW	6	2.7		8k	0	W		0.01	0.3		
North Platte, Neb.			29.53	750.0	48	8.9	70	W	8	3.6		0	0			0	0		
Omaha, Neb.			29.76	755.9	56	13.3	60	S	8	3.6		2c	5k	NW	NW	0.01	0.3		
Oswego, N. Y.			29.82	757.4	25.8	— 3.4	76	NW	14	6.3			10ks			0.03	0.8		
Pack's Beach			29.96	761.0	26	— 3.3	88	NW	20	8.9		Haze	1s			0	0		
Pembina, D. T.			30.02	762.5	28	— 2.2	94	NE	8	3.6			10s			0.02	0.5	Light snow	
Philadelphia, Penn.			29.95	760.7	25	— 3.9	64	W	12	5.4		2ck	8s	W	W	0	0		
Pike's Peak, C. T.			30.00	762.0	16	— 8.9	83	NE	8	3.6		9c	0			0	0		
Pittsburgh, Penn.			30.00	762.0	31	— 0.6	79	W	12	5.4			10s		NW	0	0		
Port Huron, Mich.			29.94	760.5	28	— 2.2	77	W	4	1.8			10s			0	0		
Portland, Maine			29.61	752.1	27	— 2.8	64	W	6	2.7		1c	0			0	0		
Portland, Or.			30.24	768.1	53	11.7	92	Calm	0	0			10n			0.12	3.0	Light rain	
Punta Rassa, Fla.			30.25	768.3	62.7	17.1	61	N	8	3.6		0	0			0	0		
Rochester, N. Y.			29.84	757.9	27	— 2.8	88	W	16	7.2		8k	0	W		0.03	0.8		
Salt Lake City, Utah			30.08	764.0	47	8.3	55	SW	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.85	758.2	26	3.3	88	W	27	12.1		0	8s			0.03	0.8		
San Diego, Cal.			30.04	763.0	75	12.8	93	SW	4	1.8			10s			0	0		
San Francisco, Cal.			30.08	764.0	51	1.6	86	S	4	1.8			10s			0	0		
Santa Fe, N. M.			29.72	754.9	41	5.0	41	N	9	4.0		0	0			0	0		
Savannah, Georgia			30.21	767.3	49	9.4	48	N	2	0.9		0	Sm'e			0	0		
Shreveport, La.			30.15	765.8	60	15.6	88	SE	1	0.4		5c	Haze			0	0		
Springfield, Mass.			29.75	755.6	30	— 1.1	59	W	12	5.4		2k	8ks	NW	W	0	0		
St. Louis, Mo.			30.01	762.2	50	10.0	32	SW	10	4.5		0	0			0	0		
St. Marks, Fla.			30.21	768.1	44	6.7	83	Calm	0	0			0			0	0		
St. Paul, Minn.			29.72	754.9	37	2.8	70	Calm	0	0		0	Haze			0	0		
St. Paul's Island, Alaska			30.25	768.3	31	— 0.6	68	ESE	27	12.1		0	10k			0	0		
Squan Beach, N. J.			29.89	759.2	28	— 2.2	77		10	4.5			10s			0	0		
Toledo, Ohio			29.95	760.7	37	2.8	71	SW	5	2.2		5cs	Haze	W		0	0		
Tybee Island, Ga.			30.22	767.6	50	10.0	53	Calm	0	0		0	0			0	0		
Vicksburg, Miss.			30.23	767.8	57	13.9	57	SE	6	2.7		0	0			0	0		
Virginia City, Mon.			29.82	757.42		5.6	66	Calm	0	0		Haze	5s			0	0		
Washington, D. C.			30.02	762.5	26.5	— 3.1	59	SW	8	3.6			10s		SW	0	0		
Wilmington, N. C.			30.18	766.6	38	3.3	30	SW	4	1.8		0	0			0	0		
Wood's Hole, Mass.			29.71	754.6	31	— 0.6	49	NW	18	8.0		0	0			0	0		
Wytheville, Va.			29.80	756.9	39	3.9	39	W	5	2.2		0	0			0	0		
Yankton, D. T.			29.78	756.1	53	11.7	67	SW	4	1.8		2ks	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.00	763.5	84	28.9		E	4	1.8		2c	2ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.97	761.2	75	23.9		NE					10n			0	0	Raining	L. V. Bigard.
Havana, Cuba, W. I.			29.96	761.0	73	22.8	85	NE	7.2	3.2		5fk	0	NE		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.26	768.6	75	23.9		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.17	766.3			76	24.4		E	2	0.9		0	5ks			0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.93	760.2	76	24.4	76	N	6.0	2.7		0	0			0	0		Robert Mason.
St. Georges, Bermudas			29.66	753.4	60.5	15.8	68	W	21.6	9.7		0	2k			0.340	8.64		C. F. Allen.
Honolulu, Oahu, S. I.			30.01	762.2	64	17.8	78	S			1	5c	2ks	SW		0	0		E. P. Church.
Makawao, Maui, S. I.																0.18	4.6		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.11	764.8	− 6.0	−21.1	100	NW	20	8.9		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	66	18.9	90	NNW	2.0	0.9		2c	2k	N		0.95	24.1		C. Partridge.
St. John's, Newfoundland			29.99	761.7	32.5	0.3	100	SE				Haze	Haze			0	0	Light rain	John Delaney.
St. John's, Porto Rico, W. I.			30.[illegible]8	764.1	83.3	28.5	63	S				0	0			0	0		Leon M. Acuña.
Elyria, Ohio			29.96	761.0	28.5	− 1.9	88	NE	6	2.7			2s			0	0		H. M. Redington.
Indianola, Iowa	29.02	737.1			54	12.2		SW					8k			0.06	1.5		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 20, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.01	762.2	63.5	17.5		NW			4		5			0	0		Charnot.
Algiers			30.10	764.6	62.6	17.0	90	E			1		8			Blank	Blank		Peter.
La Calle			30.27	768.8	61.7	16.5		SW			4		1			0	0		Kuntz.
Tunis			30.34	770.7	67.3	19.6	51	E			3		2			0	0		Jacques.
Sfax			30.33	770.3				NW			4		2			0	0		Chauvey.
Saïda			30.03	762.7	76.1	24.5		NNE			4		2			0	0		Grosjean.
Tebessa			30.25	768.4	68.2	20.1													Colin.
Gerville			30.02	762.5	75.4	24.1		SE			5		5			0	0		Bernadach.
Laghouat			30.08	764.0	69.8	21.0	34	SE			3		1			0	0		Poinsignon.
Biskra			30.19	766.8	77.4	25.2		E			2		1			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			30.09	764.3	65.7	18.7	43	Calm			0		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.13	765.4	49.1	9.5	62	W			3		9			0.008	0.2		I. R. Observatory.
Eperies			30.06	763.6	49.1	9.5	67	W			2		9			0.008	0.21		Julius Mikolik.
Gratz			30.12	765.0	61.0	16.1	62	S			2		2			0	0		Andreas Rospini.
Hermanustadt			29.98	761.4	52.3	11.3	66	NW			3		9			0	0		Prof. Reissenberger.
Kremsmünster			30.08	764.1	62.6	17.0	38	W			3		1			0	0		Prof. C. Wagner.
Lemberg			29.96	760.9	48.2	9.0	47	NE			3		5			0.016	0.4		Dr. T. Stanecki.
Nyiregyhaza			30.08	764.1	51.4	10.8	75	N			3		9			0	0		Habzsuda Daniel.
Pola			30.17	766.2	60.3	15.7	64	S			2		10			0	0		I. R. Hydrographic Office
Szegedin			30.04	763.0	58.0	14.8	62	NW			2		4			0.063	1.60		Karl Stancel.
Trieste			30.17	766.4	58.5	14.7	52	NW			1		0			0	0		Prof. V. Farolfi.
Vienna			30.04	765.5	54.5	12.5	48	NNE			2		0			0.016	0.40		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	29.98	761.5			61.7	16.7	51	NE			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.02	762.5	65.9	18.8		SE	15	6.7			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.07	763.8	66	18.9		WNW			1		0					Haze	William McNeil.
Armagh Observatory			30.04	763.0	66.3	19.1		S	17	7.6			0						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.07	763.8	69.4	20.8		SE			2		0						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.10	764.5	70.0	21.1		S-E			1		0						J. Dreyer, for L'd Rosse.
Bradford			30. 5	763.3	67.3	19.6		SW			1		0						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.40	763.0	80.0	26.7		NE			2		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.13	765.3	67.0	19.4		SE			1		0						H. Todd.
Cape Town, (Cape Colony)			30.12	765.0	69.8	21.0		SE			3		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.15	765.8			74.0	23.3	55	S	15	6.7			3						Th Staff, for E. J. Stone
Cardington																			John McLaren.
Carlisle			30.07	763.8	67.5	19.7		NW					0			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.15	765.8	54.8	12.7		NE			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.84	757.9	79.4	26.3		S			1		10						Sgt. W. F. Hopkins
Dartmoor			30.15	765.8	63.0	17.2		E			3		0						R. E. Power.
Donaghadee			30.06	763.5	58	14.4		SE			2		0						J. Mac Gowan, Jr.
Dover			30.17	766.3	53	11.7		ENE			3		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.08	764.0	71.8	22.1		SSW	5.8	2.6			0						Thomas Mackereth
Falmouth Observatory			30.06	763.5	55.1	12.8		E	17	7.6			0					Haze	The Staff.
Fort Napier, (Natal)			29.80	756.9	74.8	23.8		E			3		7						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.92	760.0	69	20.6		SE			1		1						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.08	764.0	61.5	16.4		ENE			4		10						Sergt. E. G. Baker.
Glasgow Observatory			30.04	763.0	66.4	19.1		E			1		4						James Gray.
Great Yarmouth			30.21	767.3	43	6.1		SE			2		10					Fog	G. T. Watson.
Greenwich Royal Obs.			30.14	765.5	70.2	21.2		E			1		0						The Staff, for G. B. Airy.
Guernsey			30.07	763.8	64.5	18.1		ESE			2		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.03	762.7	69.7	20.9		SW					0						F. J. Pace, for L. J. Crossley.
Halifax, (Nova Scotia)			29.63	737.3	27.0	— 2.8		SW			7		10					Snow	Corp'l J. Y. Thompson.
Helston			29.96	761.0	63	17.2		E			4		0						Dr. W. B. Mavie.
Holyhead			29.86	758.4	55	12.8		NNE			3		3						John Tilston.
Hull Park																			
Kew Observatory			30.14	765.5	68.5	20.3		SSE	8	3.6			1					Mist	The Staff.
Kingstown			30.06	763.5	58	14.4		SSE			4		1						George Mitchell.
Lampeter																			
Leicester Museum			30.14	765.5	67.0	19.4		S			1		0						William J. Harrison
Llandudno			30.08	764.0	65.4	18.6		N					0						Dr. James Nicol.
Malta, (Mediterranean)			30.21	767.3	61.8	16.6		NE			1		1k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.99	761.7	71	21.7		Calm			0		0						William D. Penny.
Nassau, (Bahamas)			30.17	766.3	72.2	22.3		NE			4		4						Surg.-Maj. J. Jameson
North Shields			30.06	763.5	59	15.0		SW			2		2					Haze	John Wm. Irvine.
Nottingham			30.12	765.0	71.2	21.8		SW			3	1c		SSE					E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.09	764.3	70.2	21.2		SE			2		1						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.10	764.5	68	20.0		SE			1		0						J. Lucas, for R. Main
Plymouth			30.06	763.5	67	19.4		SE			3		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.98	761.5	55	12.8		SE			4		5						W. Kennedy.
Saint Ann's Head			30.04	763.0	59	15.0		SE			2		0						John C. Walker.
Saint Helier, (Jersey)			30.07	763.8	72.6	22.6		SSE			1		0						A. P. Amy.
Sandwick Manse (Orkneys)			30.00	762.0	52.5	11.4		W	20	8.9			0						Rev. C. Clouston.
Scarborough			30.11	764.8	62.5	16.9		SW			1		0						F. Shaw.
Scutari, (Turkey)			30.06	763.5	55.6	13.1		S			1		4						Sergt. W. H. Lyne.
Sheffield			30.08	764.0	65.9	18.8		SW			1		1			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.08	764.0	64.7	18.2		W			2		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.19	766.8	51.3	10.7		ESE			1		0						Rev. C. J. Steward.
Stonyhurst Observatory			30.07	763.8	65.0	18.3		S			2							Haze	The Staff.
Stornoway, Lewis C. (Hebr)			30.00	762.0	64	17.8		SSE			2							Haze	John Smith.
Strathfield Turgiss			30.12	765.0	72.3	22.4		S			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.15	765.8	74.3	23.5		SSW			2		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.91	759.7	50	10.0		WNW			5		9						William Lawrence.
Taunton College																			
Thurso			29.99	761.7	66	18.9		W			3		4						John Trotter.
Truro, Royal Institution			29.99	761.7	67	19.4		E			4		0						W Newcombe.
Valencia Observatory			29.88	758.9	65.2	18.4		ESE	37	16.5			2						The Staff.
Wick																			
Wisbeach																			
Worthing			30.15	765.8	54.0	12.2		ESE			1		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.96	760.9	56.5	13.6	53	NW			2		3						
Fanöe			30.06	763.5	47.3	8.5	79	W			4		2						
Godthaab, (Greenland)			30.09	764.3	39.7	4.3		Calm			0		2						
Stykkisholm, (Iceland)			30.24	768.1	39.4	4.1	68	NE			6		0						
Thorshavn, (Faröe)			29.99	761.8	43.7	6.5	78	N			4		10					Rain	
Vestervig			29.94	760.5	47.8	8.8	81	W			4		5						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.18	766.5	64.0	18.1	46						8s						Normal School.
Alençon																			Normal School.
Amiens			30.17	766.3	75.6	24.2	66	ESE			2		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.16	766.0	67.8	19.9	26	SSE			1		0			0	0		Normal School.
Besançon			30.15	765.9	70.3	21.3	37	ENE			3		0			0	0		Normal School.
Bourges			30.11	764.8	65.1	18.4	49	SE			8		0			0	0		Normal School.
Brest			29.9[illegible]	760.7	71.1	21.7	49	SSW			3		0			0	0		Naval Observatory.
Caen			30.07	763.6	71.6	22.0	30	NE			4		0			0	0		Normal School.
Carcassonne																			
Chartres			30.09	764.4	75.0	23.9		SSE			2		0			0	0		Normal School.
Chaumont			30.11	764.8	69.6	20.9		W			1		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.15	765.9	63.7	17.6	41	NNE			1		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.14	765.5	71.6	22.0		SSE			1		1		SSE	0	0		National Observatory.
Parthenay			30.04	763.0	65.3	18.5	28	SE			2		0			0	0		Normal School.
La Roche sur Yon			30.07	763.8	73.4	23.0	32	E			2		0			0	0		Normal School.
Rouen			30.13	765.3	75.6	24.2	26	ESE			2		0			0	0		Normal School.
Saint Lo			30.12	765.0	67.8	19.9	22	SE			3		1		E	0	0		Normal School.
Villefranche			30.09	764.2	73.6	23.1	60	ESE			6		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.96	633.9			54.1	12.3	42	SSW	24.	10.83			2			0.039	1.0		—. Falguère.
Montsouris (near Paris)			30.14	765.5	74.5	23.6	22		0.8	0.39			2c			0	0		Marié Davy.
Perpignan	30.03	762.7			64.8	18.2	55	ESE	11.2	5.00			1		SE	0	0		Dr. Fines.
Saint Maur, (near Paris)																0	0		E. Renou.
Saint Pier e, (Martinique)																			
Tours			30.10	764.5	73.0	22.8	22	SSE			2		0			0	0		C. Marquet.
Versailles, (near Paris)			30.15	765.8	74.5	23.6	23	SSE			2		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.97	761.3	61.3	16.3	86	NNW	5.1	2.3			10cn			0	0	Mist	H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.13	765.3	57.6	14.2	57	NW			2		2			0	0		Prof. Hoh.
Berlin			30.17	766.3	56.3	13.5	59	S			1		4			0	0		Prof. Arndt.
Breslau			30.20	767 1	50.7	10.4	60	W			6		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.16	766.1	66.6	19.2	29	W			1-2		0			0	0		A. Senz.
Cassel			30.12	764.1	66.0	18.9	38	NW			3		0			0	0		Dr. H. Möhl.
Cologne			30.23	767.7	57.2	14.0	62	NNE			2		8			0	0		Dr. Garthe.
Emden			30.23	767.7	59.0	15.0	51	W			1		0			0	0		Prof. Prestel.
Frankfort on the Main			30.27	768.8	65.3	18.5	33	NE			2		0			0	0		Physical Society.
Friedrichshafen			30.18	766.6	57.2	14.0	52	W					1			0	0		M. Wilhelm.
Hamburg			30.19	766.9	56.5	13.6	53	W			4		4			0	0		W. Reinert.
Kiel			30.12	765.1	57.0	13.9	45	W			6		3			0	0		Prof. G. Karsten.
Königsberg			30.02	762.4	48.2	9.0	64	W			2		5			0	0		Prof. E. Luther.
Köslin			30.23	767.7	47.7	8.7		W			4		10			0	0		Dr. T gert.
Leipsic			30.24	768.0	47.8	8.8	64	W			2		5			0	0		Prof. Bruhns.
Münster			30.18	766.5	60.1	15.6	59	NW			2		0			0	0		Prof. E. Heis.
Posen			30.13	765 4	52.5	11.4	69	W			2		10			0	0		Dr. Mageser.
Strassburg, (in Alsace)			30.17	766.4	65.8	18.8	26	NE					0			0	0		Hartwig and Tülk.
Stuttgart			30.15	765.9	65.7	18.7	30	E					0			0	0		Mr. Würth.
Thorn			30.05	763 3	52.2	11.2	88	W			6		9			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.11	764.9	68.0	20.0	29	NW			4		0			0	0		Prof. Flesch.
Wustrow			30.10	764.5	46.4	8.0	76	W			1		4			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.15	765.9	66.9	19.4	52	ESE	4.9	2.2			1			0	0		
Mondovi			30.13	765.4	64.0	17.8	42	SE			4		0			0	0		
Genoa			30.20	768 5	59.2	15.1	59	S	5.0	2.5			0			0	0		
Pavia			30.15	765.8	67.8	19.9	30	S			2		0			1	0		
Verona			30.12	765.1	70.5	21.4	35	E			1		0			0	0		
Padua			30.13	765.4	61.7	16.5	54	NE	2.5	1.1			2	W		0	0		
Parma																			
Bologna			30.15	765.9	62.1	16.7	18	WSW			4		2	W		0	0		
Livorno			30.04	763.1	56.5	13.6	53	W	5.6	2.5			4			0	0		
Urbino			30.06	766.0	58.1	14.5	40	W			1		2			0	0		
Ancona			30.19	766 8	59.4	15.2	51	WSW			1		0			0	0		
Siena			30.21	767.2	61.5	16.4	40	NW	0	0			2	NE		0	0		
Rome			30.25	766.3	63.3	17.4	48	WSW	8.7	3.9			1			0	0		
Naples, O. U.			30.25	768.4	64.0	17.8	48	W			1		1			0	0		
Lecce			30.21	767.2	58.8	14.9	42	NW	9.4	4.2			0			0	0		
Cosenza			30. 1	767.4	61.3	16.3	65	NNW			1		2	NW		0	0		
Catania, (Sicily)			30.25	768.4	60.4	15.8	52	NE			2		2	E		0	0		
Riposto																			
Palermo			30.29	767.1	58.3	14.6	50	NE			4		1			0	0		
SUB-SERIES.																			
Naples, S. R.	29.72	754.8			65.8	18.8	56	NW			4			W		0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.22	767.6	58.[illegible]	14.8		ESE			2								
Groningen			30.15	765.9	57.7	14.3		W			2								
Helder			30.20	767.1	45.7	7.6		WSW			2								
Utrecht			30.17	766.4	59.5	15.3	47	SSE			2		0						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.93	760.3	46.0	7.8	89	S	14.3	6.4			10			0.079	2.0	Fog	
Christiania			29.69	754.0	54.9	12.7	49	WSW	10.7	4.6			2			0	0	Haze	
Tromsö			29.71	754.6	36.5	2.5	94	Calm			0		10			0.236	6.0	Snow	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.61	752.0			59.7	15.4	84	SSW	22.4	10.0			10			Blank	Blank		

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.04	763.1	48.4	9.1	65	WSW	7	3			10						Astronomical Obs.
Wilna			29.72	755.0	44.8	7.1	46	NW	13	6			9						Astronomical Obs.
Dorpat			29.87	758.7	34.3	1.3	43	NW	13	6			1						Physical Cabinet.
St. Petersburg			29.65	753.2	33.1	0.6	48	NW	16	7			8						Central Physical Obs.
Kieff			29.84	757.8	37.4	3.0	85	NW	16	7			10					Light rain	Physical Cabinet.
Nikolaiev			29.88	759.0	49.8	9.9	68	S	10	4.5			8					Rain	
Kertch			30.00	762.1	50.7	10.4	31	S	17	7.5			6						Lagorio.
Moscow			29.66	753.3	39.7	4.3	54	SW	10	4.5			7						Meteorological Obs.
Lugan			29.71	754.7	43.5	6.4	52	WSW	13	6			9					Rain	Meteorological Obs.
Archangel			29.74	755.5	37.4	3.0	76	NW	4	2			10					Snow	Ogorodnikof.
Tiflis			30.07	763.6	51.8	11.0	46	NNW	20	9			7						Physical Obs.
Astrakhan			30.09	764.2	50.9	10.5	41	SW	17	7.5			8						Sebastianof.
Kasan			29.52	749.7	33.8	1.0	96	N	4	2			10					Snow	Physical Cabinet.
Orenburg			29.82	757.3	40.6	4.8	84	SW	8	3.5			10						Tschernischef.
Ekaterinburg			29.93	760.2	38.1	3.4	90	SE	13	6			10						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.08	763.9	44.1	6.7	33	N	4	2			2						Meteorological Obs.
Yeniseisk			30.17	766.3	28.6	— 1.9	55	NW	10	4.5			0						Marks.
Irkutsk																			Usolzef.
Oorga			29.49	749.0	49.3	9.6	68	Calm	0	0			8						Mossin.
Peking, (China)			29.95	760.8	55.8	13.2	54	Calm	0	0			0						Physical Observatory
Nertchinsk			29.48	748.9	39.4	4.1	63	SW	10	4.5			2						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.08	764.1	61.9	16.6	57	SE	40.3	18.0			10			0.004	0.1		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.82	757.4	32.7	0.4	92	S			1		10			0	0		
Hernosand			29.78	756.3	31.0	− 0.2	98	Calm			0		10			0.21	5.4	Snow	
Stockholm			29.81	757.1	43.5	6.4	48	SW			3		10			0.04	1.0		
Wisby			29.91	759.8	41.4	5.2	81	SSE			1		6			0	0		
Sub-Series.																			
Upsala			29.82	757.4	41.4	5.2	61	S			2		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.76	730.5			62.4	16.9	28	NNE			2		0			0	0		The Observatory.
Zurich	28.52	724.4			69.3	20.7	29	W			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +0.2mm.; Thermometer, +4°.3 C.; Relative Humidity, −29 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople

Beirut, (Syria)			30.07	763.8	67.1	19.5	54	SW			2		5					Rain	
Constantinople			30.08	763.9	55.4	13.0	38	SW	5.0	2.5			2		SW	0	0		
Fao, (Persian Gulf)			29.99	761.8	82.4	28.0		NW			3		10						
Salonica			30.04	763.1	63.1	17.3		NW			3		0						
Valona			30.11	764.8	59.4	15.2		NW			2		5						
Varna			30.00	762.0	57.2	14.0		N			2		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.02	762.5	19	− 7.2		NW	8	3.6			10s		NW	0	0		
Chatham, N. B.			28.85	735.3	22	− 5.6	96	NW	23	10.3			10n		N	0.12	3.0		
Charlottetown, P. E. Island			28.78	731.0	28	− 2.2	87	W	24	10.7			10n			0.55	14.0	Light snow.	
Fort Garry, Manitoba			30.28	769.1	29	− 1.7	93	E	4	1.8			2ks			0	0		
Halifax, N. S.			28.92	734.6	28	− 2.2	87	NW	25	11.2			10n			0.30	7.6		
Kingston, Ontario			29.99	761.7	22	− 5.6	86	N	6	2.7			10s		NW	0	0		
Montreal, Quebec			29.82	757.4	16	− 8.9	49	NW	15	6.7		0	2ks			0	0		
Ottawa, Ontario			29.92	760.0	19	− 7.2	74	NW	16	7.2		2k	0	NW		0	0		
Parry Sound, Ontario			30.10	764.5	15	− 9.4	81	NW	18	8.0		2ck	0	NW		0	0		
Port Dover, Ontario			30.09	764.3	25	− 3.9	75	NW	13	5.8		0	0			0	0		
Port Stanley, Ontario			30.08	764.0	25	− 3.9	77	NW	15	6.7		0	0			0.07	1.8		
Quebec, Quebec			29.61	752.1	13	−10.6	62	W	21	9.4		0	0			0	0		
Saugeen, Ontario			30.14	765.5	18	− 7.8	92	N	8	3.6		2k	0			0	0		
Stayner, Ontario			30.08	764.0	20	− 6.7	70	N	15	6.7		0	0			0	0		
Sydney, C. B.			28.99	736.3	33	0.6	89	S	12	5.4			10n			0.80	20.3	Clearing	
Toronto, Ontario			30.07	763.8	24	− 4.4	74	NW	15	6.7		5ck	0	NW		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.81	757.2	25	— 3.9	75	NW	30	13.4		2k	0	W		0	0		
Alpena, Mich.			30.22	767.6	22	— 5.6	59	NW	12	5.4		1k	0	NW		0	0		
Atlantic City, N. J.			29.84	757.9	34	1.1	90	NW	6	2.7			10s		NW	0.08	2.0		
Augusta, Ga.			30.00	762.0	60	15.6	55	S	5	2.2		5k	2s	S	S	0	0		
Baltimore, Md.			29.86	758.4	40	4.4	73	N	3	1.3			10s		N	0.01	0.3		
Barnegat, N. J.			29.82	757.4	34	1.1	79	NW	13	5.8		8cs	0	NW		0	0		
Benton, Montana			29.94	760.5	52	11.1	53	SW	16	7.2			10s		SW	0.03	0.8		
Bismarck, Dakota			30.05	763.0	31	— 0.6	79	SE	3	1.3			10s			0	0		
Boston, Mass.			29.63	752.6	26	— 3.3	56	NW	20	8.9		0	0			0	0		
Breckenridge, Minn.			30.22	767.6	31	— 0.6	79	NE	4	1.8		0	0			0	0		
Buffalo, N. Y.			30.00	762.0	26.5	— 3.1	70	NW	8	3.6		0	5ks		NW	0.01	0.3		
Burlington, Vt.			29.81	757.2	18	— 7.8	68	N	12	5.4		2k	2s	N		0	0		
Cairo, Ill.			29.91	759.7	57	13.9	87	Calm	0	0			10ks		W	0.07	1.8		
Cape Hatteras, N. C.			29.82	757.4	60	15.6	65	SW	22	9.8		10cs	0	W		0	0		
Cape Henry, Va.			29.78	756.4	46	8.3	84	NE	20	8.9		Haze	Haze			0	0		
Cape May, N. J.			29.84	757.9	36	2.2	90	N	8	3.6			10s			0	0	Threatening	
Charleston, S. C.			30.04	763.0	58	14.4	57	W	10	4.5		0	Sm'e			0	0		
Cheyenne, W. T.			29.98	761.5	40	4.4	63	Calm	0	0		2c	8s			0	0		
Chicago, Ill.			30.12	765.0	32	0.0	79	N	12	5.4		2k	0	NE		0.11	2.8		
Cincinnati, Ohio			29.91	759.7	42	6.1	74	N	8	3.6			10s			0.17	4.3		
Cleveland, Ohio			30.06	763.5	29.2	— 1.6	66	NE	4	1.8		0	0			0.33	8.4		
Colorado Springs, Col.			29.94	760.5	49	9.4	37	NW	8	3.6		2ck	0	N		0	0		
Corsicana, Texas			29.86	758.4	59	15.0	87	S	6	2.7			10s		S	0.55	14.0		
Davenport, Iowa			30.10	761.5	36	2.2	62	NE	20	8.9		10ck	0			0.11	2.8		
Denver, Col.			30.02	762.5	46	7.8	47	SW	4	1.8		5cs	0	NW		0	0		
Detroit, Mich.			30.11	764.8	27	— 2.8	77	N	8	3.6		0	Haze			0.01	0.3		
Dodge City, Kansas			29.60	751.8	48	8.9	92	N	24	10.7			10s			0	0	Threatening	
Dubuque, Iowa			30.18	766.6	32	0.0	58	E	16	7.2		5ck	0	NW		0	0		
Duluth, Minn.			30.30	769.6	27	— 2.8	64	NE	8	3.6		0	0			0	0		
Eastport, Me.			29.22	742.2	23	— 5.0	74	NW	30	13.4		10c	0	NW		0	0		
Erie, Penn.			30.01	762.2	30	— 1.1	80	N	8	3.6		0	Haze			0.05	1.3		
Escanaba, Mich.			30.28	769.1	19	— 7.2	70	N	6	2.7		Haze	Haze			0.04	1.0		
Fort Gibson, I. T.			29.82	757.4	60	15.6	82	E	4	1.8			10s		SE	0.01	0.3		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.13	765.3	36	2.2	61	SE	12	5.4			8s		SE	0	0		
Galveston, Texas			29.86	758.4	66	18.9	84	SE	9	4.0		2c	5s	SW	S	0.81	20.6		
Grand Haven, Mich.			30.17	766.3	29	— 1.7	67	NE	12	5.4		0	0			0	0		
Indianapolis, Ind.			29.96	761.0	39	3.3	72	NE	16	7.2			10s		NE	0.07	1.8		
Indianola, Texas			29.92	760.0	68	20.0	84	S	14	6.3		0	2s		S	0.99	25.1		
Jacksonville, Fla.			30.13	765.3	61	16.1	61	S	8	3.6		0	0			0	0		
Keokuk, Iowa			29.98	761.5	37	2.8	71	NE	16	7.2			10s		NE	0	0		
Key West, Fla.			30.14	765.5	73	22.8	47	SE	10	4.5		Haze	Sm'e			0	0		
Kittyhawk, N. C.			29.76	755.9	54	12.2	87	W	20	8.9			10s			0	0		
Knoxville, Tenn.			29.93	760.2	54	12.2	60	SW	8	3.6			10s		W	0.02	0.5		
La Crosse, Wis.			30.19	766.8	32	0.0	59	NE	10	4.5		5ck	0			0	0		
Leavenworth, Kan.			29.87	758.7	46	7.8	77	NE	12	5.4			10s		NE	0.09	2.3		
Lexington, Ky.			29.95	760.7	48	8.9	78	NE	10	4.5			10s			0	0		
Long Branch, N. J.			29.83	757.7	36	2.2	45	NW	25	11.2		0	0			0	0		
Louisville, Ky.			29.88	758.9	57	13.9	81	S			1		10s		SW	0	0		
Lynchburg, Va.			29.80	756.9	50	10.0	45	E	5	2.2		10k	0	W		0	0		
Malone, N. Y.																			
Marquette, Mich.			30.29	769.4	24	— 4.4	61	NW	2	0.9		0	0			0	0		
Memphis, Tenn.			29.99	761.7	63	17.2	78	Calm	0	0			10s			0.02	0.5		
Milwaukee, Wisconsin			30.23	767.8	29	— 1.7	77	NE	20	8.9		2c	0			0.10	2.5		
Mobile, Ala.			30.09	764.3	64	17.8	89	S	1	0.4			10s			0	0		
Montgomery, Ala.			30.12	765.0	58.5	14.7	85	W	2	0.9		10ck	Haze	W		0	0		
Morgantown, W. Virginia			29.96	761.0	33	0.6	84	N	9	4.0			10s			0.02	0.5		
Mt. Washington, N. H.			29.23	742.4	-13	-25.0	100	N	84	37.6			Fog			0	0		
Nashville, Tenn.			29.91	759.7	59	15.0	70	Calm	0	0			10s			0	0		
New Haven, Conn.			29.76	759.9	29	— 1.7	59	NNW	16	7.2		0	1s			0.01	0.3		
New London, Conn.			29.72	754.9	33	0.6	61	NW	20	8.9		0	0			0	0		
New Orleans, La.			30.03	762.7	64	17.8	83	S	2	0.9		8k	Fog	S		0	0		
Newport, R. I.																			
New York, N. Y.			29.82	757.4	32	0.0	68	NW	18	8.0		0	0			0	0		
Norfolk, Va.			29.79	756.7	50	10.0	78	NE	12	5.4			10s			0	0		
North Platte, Neb.			29.67	753.6	42	5.6	83	NE	8	3.6		8k	4ks	NW	NW	0.03	0.8		
Omaha, Neb.			30.08	764.0	40	4.4	73	N	12	5.4			10s		NE	0	0		
Oswego, N. Y.			29.96	761.0	24.3	— 4.3	72	N	4	1.8			8ks			0	0		
Peck's Beach			29.84	757.9	35	1.7	90	N	12	5.4			10s			0.06	1.5		
Pembina, D. T.			30.24	768.1	27	— 2.8	76	SE	4	1.8		8c	2s			0.01	0.3		
Philadelphia, Penn.			29.88	758.9	33	0.6	50	N	14	6.3		5ck	2s	NW	N	0.10	2.5	Clearing	
Pike's Peak, C. T.			29.98	761.5	17	— 8.3	67	NW	24	10.7		2k	0	NW		0	0		
Pittsburgh, Penn.			29.98	761.5	31	— 0.6	78	N	9	4.0		0	Haze			0.22	5.6		
Port Huron, Mich.			30.13	765.3	26	— 3.3	53	N	24	10.7		0	0			0.08	2.0		
Portland, Maine			29.53	750.0	24	— 4.4	74	W	16	7.2		0	0			0	0		
Portland, Or.			30.21	767.3	52	11.1	86	NW	3	1.3			10s			0.13	3.3		
Punta Rassa, Fla.			30.17	766.3	65.3	18.5	52	E	6	2.7		2c	Sm'e			0	0		
Rochester, N. Y.			29.96	761.0	27	— 2.8	88	NW	12	5.4			10s			0	0		
Salt Lake City, Utah			30.06	763.5	63	17.2	55	Calm	0	0		0	0			0	0		
Sandy Hook, N. J.			29.80	756.9	33	0.6	50	NW	32	14.3		0	2s		W	0	0		
San Diego, Cal.			30.04	763.0	54	12.2	93	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			29.98	761.5	52	11.1	86	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.72	754.9	49	9.4	31	E	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			30.07	763.8	58	14.4	53	SW	10	4.5		0	Sm'e			0	0		
Shreveport, La.			29.91	759.7	64	17.8	78	S	1	0.4		0	8s		S	0.01	0.3		
Springfield, Mass.			29.72	754.9	28	— 2.2	44	NW	16	7.2		0	0			0	0		
St. Louis, Mo.			29.90	759.4	49	9.4	71	NE	8	3.6		0	2s		E	0.31	7.9		
St. Marks, Fla.			30.10	764.5	50	10.0	77	Calm	0	0		0	0			0	0		
St. Paul, Minn.			30.17	766.3	30	— 1.1	59	NE	4	1.8		0	0			0	0		
St. Paul's Island, Alaska			30.11	764.8	25	— 3.9	74	ENE	25	11.2		0	1k			0	0		
Squan Beach, N. J.			29.81	757.2	35	1.7	45	NW	10	4.5		2k	0			0	0		
Toledo, Ohio			30.12	765.0	30	— 1.1	68	N	8	3.6		0	0			0.16	4.1		
Tybee Island, Ga.			30.07	763.8	58	14.4	62	W	10	4.5		0	Sm'e			0	0		
Vicksburg, Miss.			30.00	762.0	63	17.2	83	S	11	4.9			10s		S	0	0	Threatening	
Virginia City, Mon.			29.80	756.9	40	4.4	56	Calm	0	0			10s			0	0		
Washington, D. C.			29.87	758.7	37	2.8	95	N	7	3.1			10n			0.01	0.3	Misty	
Wilmington, N. C.			29.91	759.7	62	16.7	36	W	18	8.0		Haze	Haze			0	0		
Wood's Hole, Mass.			29.64	752.8	32	0.0	68	NW	17	7.6		0	0			0	0		
Wytheville, Va.			29.56	750.8	54	12.2	67	W	9	4.0		8k	0	W		0	0		
Yankton, D. T.			30.18	766.6	37	2.8	81	NE	6	2.7			10s		NE	0			

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		NE	7	3.1		2c	5ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.01	762.2	7[illegible]	21.1		NE				2cs	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.88	758.9	70	21.1	85	SE	6.0	2.7		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.24	768.1	76	24.4		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			78	25.6		E	8	3.6		2ck	5k	E		0.02	0.5		W. S. Cameron.
Santiago de Cuba, W. I.			29.96	761.0	74	23.3	76	N	1.2	0.5		0	0			0	0		Robert Mason.
St. Georges, Bermudas			29.99	761.7	59.0	15.0	70	WNW	4.2	1.9		0	0			0.030	0.76		C. F. Allen.
Honolulu, Oahu, S. I.			30.04	763.0	62	16.7	73	NE			2	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.90	759.4	60	15.6	88	Calm	0	0		0	5n		NE	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.25	768.3	— 1.5	—18.6	100	W	4	1.8		0	0			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.08	764.0	66	18.9	93	E	2.0	0.9		0	5k			0	0		C. Partridge.
St. John's, Newfoundland			29.48	749.0	34	1.1	100	E					10n			0	0	Rainy.	John Delaney.
St. John's, Porto Rico, W. I.			30.10	764.6	76.6	24.8	69	NE			3	2ck	8n			0.256	6.50		Leon M. Acuña.
Flyria, Ohio			30.05	763.3	30	— 1.1	78	NE	8	3.6		0	0			0.25	6.3		H. M. Redington.
Indianola, Iowa	29.15	740.4			35	1.7		E				6k	0	NW		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 21, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.99	761.1	62.8	17.1		NE			2		5			0	0		Charnot.
Algiers			30.02	762.5	69.4	20.8	62	NNW			4		9			0	0	Fog	Peter.
La Calle			30.20	767.0	75.6	24.2		S			2		2			0	0		Kuntz.
Tunis			30.28	769.2	72.3	22.4	30	SE			3		0			0	0		Jacques.
Sfax			30.30	769.5				ENE			4		5			0	0		Chauvey.
Salda			29.98	761.6	75.4	24.1		SSE			4		5			0.039	1.0		Grosjean.
Tebessa					71.1	21.7		SW			3		2			0	0		Colin.
Gerlville			29.99	761.8	70.2	21.2		SE			4		3			0	0		Bernadach.
Laghouat			30.04	762.9	67.1	19.5	44	SE			3		4			0	0		Poinsignon.
Biskra			30.11	764.7	70.3	21.3		E			2		1			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.86	758.8	73.8	23.2	25	SW			4		5			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.74	755.4	63.1	17.3	38	WSW			4		0			0	0		I. R. Observatory.
Eperies			29.79	756.7	58.3	14.6	52	SE			4		0			0	0		Julius Mikolik.
Gratz			29.84	757.8	67.6	19.8	40	S			2		0			0	0		Andreas Rospini.
Hermannstadt			29.91	759.6	60.1	15.6	37	NW			4		3			0	0		Prof. Reissenberger.
Kremsmünster			29.82	757.6	66.6	19.2	36	W			3		2			0	0		Prof. C. Wagner.
Lemberg			29.60	753.4	59.4	15.2	48	SW			5		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.87	758.8	65.1	18.4	44	W			3		0			0	0		Habzsuda Daniel.
Pola			30.08	764.0	62.8	17.1	48	S			1		0			0	0		I. R. Hydrographic Office
Szegedin			29.91	759.8	68.0	20.0	38	W			2		0			0	0		Karl Stancel.
Trieste			30.05	763.4	58.6	14.8	70	WNW			1		0			0	0		Prof. V. Farolfi.
Vienna			29.80	757.0	72.0	22.2	30	WSW			3		0			0	0	Fog	I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.64	752.8			69.8	21.0	37	NW			2		8		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.08	764.0	43.0	6.1		N	18	8.0			7			0.025	0.64		William Boswell.
Annanhill																			
Ardrossan			30.01	762.2	49	9.4		ENE			4		6						William McNeil.
Armagh Observatory			29.90	759.4	60.9	16.1		NE	12	5.4			10						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			29.88	758.9	54.0	12.2		WNW			1		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.83	757.7	58.9	14.9		NNE			1		10						J. Dreyer, for L'd Rosse.
Bradford			29.92	760.0	48.2	9.0		N			1		9						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.09	764.3	81.0	27.2		NE			4		4						T. H Hunt.
Bywell																			
Cambridge Observatory			29.87	758.7	65.0	18.3		N			1		10						H. Todd.
Cape Town, (Cape Colony)			30.10	764.5	70.2	21.2		NW			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.07	763.8			81	27.2	40	SE	9	4.0			0						Th Staff, for E. J. Stone
Cardington																			John McLaren.
Carlisle			29.93	760.2	47.7	8.7		E					10			0	0	Threatening	T Bell, for J. Cartmell.
Chatham, School M. E			29.85	758.2	65.4	18.6		NE			1		10					Haze	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.82	757.4	78.7	25.9		SW			5		10					Rain	Sgt. W. F. Hopkins
Dartmoor			29.94	760.5	57.0	13.9		SW			1		10						R. E. Power.
Donaghadee			29.93	760.2	56	13.3		E			3		5						J. Mac Gowan, Jr.
Dover			29.86	758.4	56	13.3		S			1		3						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.89	759.2	54.7	12.6		NE	5.2	2.3			10						Thomas Mackereth
Falmouth Observatory			29.87	758 7	58.2	14.6		WSW	16	7.2			9						The Staff.
Fort Napier, (Natal)			30.07	763.8	66.0	18.0		S			4		6						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.77	756.1	55.5	13.1		E			1		10					Rain	B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.04	763.0	58.0	14.4		E			3		10					Rain	Sergt. E. G. Baker.
Glasgow Observatory			30.01	762.2	45.0	9.4		E			3		9						James Gray.
Great Yarmouth			29.88	758 9	56	13.3		N			4		3					Haze	G. T. Watson.
Greenwich Royal Obs.			29.87	758.7	64.0	17.8		E			1		10						The Staff, for G. B. Airy.
Guernsey			29.86	758.4	62.5	16.9		SW			1		6					Showery	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.91	759.7	49.4	9.7		N					10					Threatening	F. J. Pierce, for L. J. Crossley.
Halifax, (Nova Scotia)			29.34	745.2	29.0	— 1.7		W			1		6						Corp'l J. V. Thompson.
Helston			29.80	756.9	58.0	14.4		SW			2		10						Dr. W. B. Mavle.
Holyhead			29.86	758.4	55	12.8		NNE			3		3						John Tilston.
Hull Park																			
Kew Observatory			29.87	758.7	66.9	19.4		SSW	2	0.9			8					Mist	The Staff.
Kingstown			29.87	758 7	51	10.6		ESE			1		8						George Mitchell.
Lampeter																			
Leicester Museum			29.89	759.2	63.0	17.2					1		10						William J. Harrison
Llandudno					56.2	13.4		Calm					10						Dr. James Nicol.
Malta, (Mediterranean)			30.25	768.3	62.0	16.7		NE			1		4k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.12	764.8	46	7.8		E			1		5						William D. Penny.
Nassau, (Bahamas)			30.08	764.0	75.9	24.4		SE			4		6						Surg.-Maj. J. Jameson.
North Shields			30.03	762.7	46	7.8		NNE			5		8						John Wm. Irvine.
Nottingham			29.94	760.5	56.8	13.8		NE			4		10k		NNE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.88	758.9	57.0	13.9		NNE			1		10					Rain	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.85	758 2	67	19.4		E			1		10						J. Lucas, for R. Main
Plymouth			29.85	758.2	59	15.0		S			1		10					Rain	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.84	757 9	56	13.3		SE			2		10					Fog	W. Kennedy.
Saint Ann's Head			29.84	7 7.9	56	13.3		Calm			0		5						John C. Walker.
Saint Helier, (Jersey)			30.86	758 4	61.5	16.4		W			1		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.12	765.0	39.2	4.0		N	20	8.9			10					Mist	Rev. C. Clouston
Scarborough			29.98	761.5	43.1	6.2		NE			4		10					Mist	F. Shaw.
Scutari, (Turkey)			30.10	764.5	55.6	13.0		SW			1		2						Sergt. W. H. Lyne.
Sheffield			29.94	760.5	54.0	12.2		NE			2		9			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.98	761.5	50.7	10.4		E			6		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.86	758.4	62.4	16.9		NNE			2		5						Rev. C. J. Steward.
Stonyhurst Observatory			29.92	760.0	50.8	10.4		NE			3							Haze	The Staff.
Stornoway, Lewis C. (Hebr.)			30.13	765.3	46	7.8		NE			5		5					Threatening	John Smith.
Strathfield Turgiss			29.85	758.2	62.7	17.1		SE			1		10						Rev Charles H. Griffith
Streatley Vicarage			29.88	758.9	68.9	20.5		SW			2		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.99	761.7	40	4.4		NNE			6		6						William Lawrence.
Taunton College																			
Thurso			30.11	764.8	42	5.6		NNE			4		8						John Trotter.
Truro Royal Institution			29.83	757.7	60	15.6		W			4		10						W Newcombe.
Valencia Observatory			29.81	757.2	54.5	12.5		SW	14	6.3			10					Mist	The Staff.
Wick																			
Wisbeach																			
Worthing			29.88	758.9	56.4	13.6		ESE			1		10						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.47	748.4	44.1	6.7	74	NNW			4		9						
Faröe			29.65	753.2	44.2	6.8	78	NW			6		8						
Godthaab, (Greenland)			29.99	761.7	39.2	4.0		E			4		0						
Stykkisholm, (Iceland)			30.36	771.2	42.8	6.0	85	Calm			0		0						
Thorshavn, (Faröe)			30.21	767.4	37.6	3.1	50	N			4		1						
Vestervig			29.61	752.1	45.0	7.2	72	W			4		2						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.4	64.4	18.0	53						8s						Normal School.
Alençon																			Normal School.
Amiens			29.87	758.7	70.2	26.2	45	WSW			2		5		WSW	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.88	759.0	72.1	22.3	22	W			1		2		W	0	0		Normal School.
Besançon			30.01	762.2	68.9	20.5	19	S			6		0			0	0		Normal School.
Bourges			29.96	761.0	69.1	20.6	53	W			1		2		W	0	0		Normal School.
Brest			29.85	758.2	66.7	19.3	66	SW			3		8		W	0	0		Naval Observatory.
Caen			29.84	757.8	72.3	22.4	47	SW			2		2			0	0		Normal School.
Carcassonne																			
Chartres			29.88	758.9	73.4	23.0		SW			2		0			0.020	0.5		Normal School.
Chaumont			29.89	759.3	71.4	21.9		SW			2		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			29.91	759.8	68.0	20.0	25	SSW			6		0			0	0		Normal School.
Orleans																			Normal School.
Paris			29.88	758.9	75.2	24.0		WSW			2		1cs		NE	0	0		National Observatory.
Parthenay			29.87	758.7	66.2	19.0	43	SW			4		5		SW	0	0		Normal School.
La Roche sur Yon			29.92	760.0	70.9	21.6	55	SW			4		0			0	0		Normal School.
Rouen			29.87	758.7	77.7	25.4	48	S			2		2		SE	0	0		Normal School.
Saint Lo			29.67	753.7	65.3	18.4	21	SE			2		5		W	0	0		Normal School.
Villefranche			30.01	762.3	73.9	23.3	56	SE			6		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.87	631.8			54.3	12.4	68	ESE	9.8	4.17			6		SSW	0	0		—. Falguère.
Montsouris (near Paris)			29.88	758.9	77.4	25.2	19	W	2.0	0.91			2ck			0	0		Marié Davy.
Perpignan	29.93	760.2			62.1	16.7	65	ESE	13.0	5.83			4			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			29.90	759.5	74.1	23.4	31	WSW			2		1		W	0	0		C. Marquet.
Versailles, (near Paris)			29.51	749.5	75.2	24.0	20	W			1		3			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.02	762.4	51.1	10.6	88	E	2.7	1.2			0			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.80	756.9	68.0	20.0	19	W			7		2			0	0		Prof. Hoh.
Berlin			29.59	751.6	68.0	20.0	30	W			7		4			0	0		Prof. Arndt.
Breslau			29.73	755.2	67.6	19.8	32	W			7		1			0.020	0.5		Dr. P. Neugebauer.
Carlsruhe			29.85	758.3	72.7	22.6	23	SW			4		3			0	0		A. Senz.
Cassel			29.64	752.8	73.6	23.1	24	WSW			3		0			0	0		Dr. H. Möhl.
Cologne			29.84	757.9	70.2	21.2	44	WSW			8		3			0	0		Dr. Garthe.
Emden			29.81	757.2	8.6	9.2	66	N			5		1			0	0		Prof. Prestel.
Frankfort on the Main			29.87	758.7	76.1	24.5	19	W			4		3			0	0		Physical Society.
Friedrichshafen			29.95	760.6	61.7	16.5	51	S					3			0	0		M. Wilhelm.
Hamburg			29.70	754.4	52.3	11.3	67	W			6		4			0	0		W. Reinert.
Kiel			29.66	753.3	53.1	11.7	58	WNW			5		9			0	0		Prof. G. Karsten.
Königsberg			29.32	744.8	47.7	8.7	74	W			6		9			0	0		Prof. E. Luther.
Köslin			29.64	752.9	59.4	15.2		W			6		6			0	0		Dr. T gert.
Leipsic			29.72	754.8	70.3	21.3	26	W			5		0			0	0		Prof. Bruhns.
Münster			29.75	755.6	71.6	22.0	36	NW			2		3			0	0		Prof. E. Heis.
Posen			29.57	751.0	67.5	19.7	28	SW			8		0			0.008	0.2		Dr. Magener.
Strassburg, (in Alsace)			29.87	758.8	74.1	23.4	16	SW					3			0	0		Hartwig and Tülk.
Stuttgart			29.84	757.8	73.2	22.9	29	SW					2			0	0		Mr. Würth.
Thorn			29.48	748.9	64.6	18.1	37	W			7		1			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			29.80	757.0	70.5	21.4	26	SW			6		4			0.004	0.1		Prof. [illegible]lesch.
Wustrow			29.58	751.3	45.9	7.7	84	WNW			2		7			0	0		E. F. [illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.06	763.4	62.6	17.0	55	ESE	7.4	3.3			1			0	0		
Mondovi			30.04	762.9	62.0	17.0	54	NE			4		0	WNW		0	0		
Genoa			30.17	766.3	60.3	15.7	57	SE	5.6	2.5			2	SE		0	0		
Pavia			30.06	763.5	65.7	18.7	40	SW			4		0			0	0		
Verona			29.99	761.8	70.3	21.3	38				4		0			0	0		
Padua			30.00	762.0	56.7	13.7	42	SW	5.6	2.5			0			0	0		
Parma																			
Bologna			30.06	763.4	68.4	20.2	17	SW			4		0			0	0		
Livorno			30.21	767.4	60.8	16.0	59	WSW	6.3	2.8			0			0	0		
Urbino			30.13	765.3	61.0	16.1	34	SW			4		10			0	0		
Ancona			30.05	763.2	70.2	21.2	40	NW			2		10			0	0		
Siena			30.13	765.3	64.0	17.8	39	SSW	0	0			2	SW		0	0		
Rome			30.23	767.8	64.6	18.1	47	SW	3.8	1.7			0			0	0		
Naples, O. U.			30.26	768.7	63.7	17.6	56	SW			2		1	N		0	0		
Lecce			30.21	767.2	61.2	16.2	43	NNE	16.8	7.5			1			0	0		
Cosenza			30.19	766.9	66.2	19.0	54	ESE			2		0			0	0		
Catania, (Sicily)			30.03	762.7	61.9	16.6	57	SE			2		1	N		0	0		
Lipposto																			
Palermo			30.18	766.6	59.5	15.3	61	NE			4		0			0	0		
Sub-Series.																			
Naples, S. R.	29.71	754.5			61.9	16.6	67	SW			6					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.89	759.2	54.0	12.2		W			3								
Groningen			29.74	755.4	50.2	10.1		N			5								
Helder			29.84	757.8	49.5	9.7		N			4								
Utrecht			29.77	756.2	69.4	20.8	34	WNW			4		2						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.72	754.8	35.6	2.5	56	WNW	34.4	15.4			3			0	0		
Christiania			29.47	748.6	40.1	4.5	39	NW	7.8	3.5			8			0	0	Hail	
Tromsö			29.46	748.3	44.6	7.0	94	N			2		3			0	0	Snow	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.65	753.0			62.1	16.7	74	SW	9.8	4.4			5						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.51	749.6	62.8	17.1	42	WSW	31	14			2						Astronomical Obs.
Wilna			29.09	738.9	48.4	9.1	72	WSW	10	4.5			10						Astronomical Obs.
Dorpat			29.07	738.3	3[illegible].9	0.5	90	SSE	9	4			10						Physical Cabinet.
St. Petersburg			29.16	740.7	29.7	− 1.4	58	ESE	4	2			10						Central Physical Obs.
Kieff			29.58	751.2	56.3	13.5	63	WSW	27	12			10						Physical Cabinet.
Nikolaiev			29.88	759.0	52.0	11.1	51	S	31	14			7						
Kertch			29.98	761.6	52.3	11.3	48	W	36	16			6						Lagorio.
Moscow			29.46	748.2	31.5	− 0.3	70	W	8	3.5			10					Snow	Meteorological Obs.
Lugan			29.65	753.1	44.6	7.0	45	W	25	11			10						Meteorological Obs.
Archangel			29.47	748.4	24.1	− 4.4	86	NW	13	6			8						Ogorodnikof.
Tiflis			30.02	762.4	54.3	12.4	34	N	10	4.5			8						Physical Obs.
Astrakhan			29.97	761.1	48.4	9.1	57	S	17	7.5			10						Sebastianof.
Kasan			29.43	747.4	50.2	5.1	64	WSW	10	4.5			6						Physical Cabinet.
Orenburg			29.83	757.7	44.6	7.0	49	SW	10	4.5			10						Tschernischef.
Ekaterinburg			29.52	749.8	37.0	2.8	51	SW	17	7.5			8						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.88	759.0	45.9	7.7	36	E	4	2			3						Meteorological Obs.
Yeniseisk			30.16	766.1	37.6	3.1	54	Calm	0	0			0						Clarks.
Irkutsk																			Usolzef.
Oorga			30.08	764.1	19.0	− 7.2	55	Calm	0	0			0						Mossin.
Peking, (China)			29.38	746.3	63.9	17.7	53	Calm	0	0			7						Physical Observatory
Nertchinsk			29.42	747.2	32.0	0	69	NW	8	3.5			7						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurd kof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.97	761.2	66.7	19.3	54	S	4.7	2.1		2	7			0	0	Light rain	Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.28	743.8	32.5	0.3	59	N			2		8			0	0		
Hernosand			29.27	743.4	37.8	3.2	66	W			2		6			0	0		
Stockholm			29.28	743.7	35.6	2.0	40	N			5		4			0.03	0.8		
Wisby			29.36	745.6	34.9	1.6	75	N			3		4			0.02	0.5		
Sub-Series.																			
Upsala			29.32	744.8	35.8	2.1	79	N			4		2		N				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.59	726.2			69.3	20.7	13	SSW			4		0			0	0		The Observatory.
Zurich	28.32	719.3			70.0	21.1	25	SW			4		2			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.9mm.; Thermometer, +7°.9 C.; Relative Humidity, —44 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.08	762.2	63.0	17.2	53	NW			2		5					Rain	
Constantinople			30.12	765.1	54.7	12.6	62	NE	9	4			5		WNW	0	0		
Fao, (Persian Gulf)			29.95	760.7	82.4	28.0		NW			4		5						
Salonica			30.07	763.8	68.4	20.2		NW			1		0						
Valona			30.13	765.2	59.9	15.5		NW			2		0						
Varna			30.06	763.5	62.6	17.0		SW			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.11	764.8	15	— 9.4		NW	7	3.1			8s		N	0	0		
Chatham, N. B.			29.38	746.2	33	0.6	86	N	8	3.6		Haze	Haze	N		0.12	3.0		
Charlottetown, P. E. Island			29.33	745.0	29	— 1.7	85	W	4	1.8			10s			0.07	1.8		
Fort Garry, Manitoba			30.18	766.6	38	3.3	86	S	10	4.5		2k	5n	S	S	0	0		
Halifax, N. S.			29.23	742.4	29	— 1.7	84	N	3	1.3		0	2ks		N	0.08	2.0		
Kingston, Ontario			30.11	764.8	19	— 7.2	98	W	12	5.4		2c	0			0	0		
Montreal, Quebec			29.96	761.0	15	— 9.4	73	NW	17	7.6			10n		NW	0.07	1.8	Light snow.	
Ottawa, Ontario			30.06	763.5	11	—11.7	69	NW	14	6.3		10k	0	N		0	0		
Parry Sound, Ontario			30.25	768.3	14	—10.0	64	N	17	7.6		0	0			0	0		
Port Dover, Ontario			30.20	767.1	23	— 5.0	47	N	15	6.7		0	0			0	0		
Port Stanley, Ontario			30.21	767.3	23	— 5.0	72	NW	12	5.4		0	0			0	0		
Quebec, Quebec			29.72	754.9	21	— 6.1	71	NW	10	4.5		0	0			0	0		
Saugeen, Ontario			30.29	769.4	16	— 8.9	92	N	10	4.5		0	0			0	0		
Stayner, Ontario			30.23	767.8	18	— 7.8	60	NW	15	6.7		0	0			0	0		
Sydney, C. B.			29.28	743.7	31	— 0.6	79	N	4	1.8			10n		N	0	0		
Toronto, Ontario			30.17	766.3	21	— 6.1	51	NW	20	8.9		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.88	758.9	24	— 4.4	86	W	29	13.0		5k	0	W		0	0		
Alpena, Mich.			30.36	771.1	19	— 7.2	69	NE	18	8.0		0	0			0	0		
Atlantic City, N. J.			29.97	761.2	31	— 0.6	60	NW	17	7.6		1c	0	NW		0	0		
Augusta, Ga.			29.85	758.2	60	15.6	82	Calm	0	0			10s		SE	0.04	1.0		
Baltimore, Md.			30.05	763.3	35	1.7	35	NW	9	4.0		2c	0	W		0	0		
Barnegat, N. J.			29.92	760.0	30	— 1.1	79	W	19	8.5		Haze	0			0	0		
Benton, Montana			30.18	766.6	37	2.8	71	Calm	0	0		0	0			0	0		
Bismarck, Dakota			30.09	764.3	37	2.8	62	W	8	3.6		8k	0	NW		0	0		
Boston, Mass.			29.72	754.9	25	— 3.9	38	NW	24	10.7		0	0			0	0		
Breckenridge, Minn.			30.21	767.3	36	2.2	85	SE	10	4.5		8k	0	SE		0	0		
Buffalo, N. Y.			30.14	765.5	22	— 5.6	45	NW	12	5.4		0	1s		NW	0	0		
Burlington, Vt.			29.95	760.7	16	— 8.9	66	N	13	5.8			10s			0	0		
Cairo, Ill.			30.05	763.3	46	7.8	60	NE	8	3.6			10s		NE	0.05	1.3		
Cape Hatteras, N. C.			30.01	762.2	42	5.6	100	NE	18	8.0			10n		NE	0.30	7.6	Light rain	
Cape Henry, Va.			30.05	763.3	42	5.6	58	N	16	7.2			10s			0	0		
Cape May, N. J.			30.00	762.0	32	0.0	60	NW	18	8.0		8cs	0	W		0	0		
Charleston, S. C.			29.92	760.0	62	16.7	70	SW	8	3.6		8ck	Sm'e	W		0.08	2.0		
Cheyenne, W. T.			30.11	764.8	35	1.7	80	NW	12	5.4		2ck	0	N		0.32	8.1		
Chicago, Ill.			30.29	769.4	33	0.6	69	NE	15	6.7		0	0			0	0		
Cincinnati, Ohio			30.08	764.0	33	0.6	51	N	12	5.4		0	0			0	0		
Cleveland, Ohio			30.21	767.3	27.8	— 2.3	76	N	13	5.8		5k	0	N		0	0		
Colorado Springs, Col.			30.08	764.0	44	6.7	68	N	8	3.6		0	0			0.02	3.0		
Corsicana, Texas			29.91	759.7	55	12.8	95	NW	6	2.7		0	0			0.50	12.7		
Davenport, Iowa			30.30	769.6	32	0.0	60	NE	12	5.4		0	0			0	0		
Denver, Col.			30.17	766.3	38	3.3	72	SE	4	1.8		1k	0	N		0	0		
Detroit, Mich.			30.27	768.8	27	— 2.8	60	N	10	4.5		2ck	Haze			0	0		
Dodge City, Kansas			29.84	757.9	41	5.0	91	N	12	5.4			10s			0.12	3.0		
Dubuque, Iowa			30.35	770.4	32	0.0	68	SE	12	5.4		2cs	0			0	0		
Duluth, Minn.			30.40	773.4	26	— 3.3	75	NE	8	3.6		5ck	0	NE		0	0		
Eastport, Me.			29.47	748.5	25	— 3.9	88	N	11	4.9			10n			0.03	0.8	Light snow	
Erie, Penn.			30.18	766.6	25	— 3.9	27	N	6	2.7		1k	0			0	0		
Escanaba, Mich.			30.40	773.4	17	— 8.3	75	N	16	7.6		Haze	Haze			0	0		
Fort Gibson, I. T.			29.81	759.7	52	11.1	86	NW	10	4.5			10s		NW	0	0	Threatening	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.08	764.0	43	6.1	66	SE	6	2.7		2k	0	S		0	0		
Galveston, Texas			29.80	758.4	68	20.0	94	NW	12	5.4			10ks			0.04	1.0	Threatening	
Grand Haven, Mich.			30.04	760.6	29	— 1.7	78	E	14	6.3		0	0			0	0		
Indianapolis, Ind.			30.19	766.8	33	0.6	43	NE	12	5.4		0	0			0	0		
Indianola, Texas			29.88	758.9	69	20.6	95	NW	4	1.8		0	8s		NW	0.02	0.5		
Jacksonville, Fla.			29.99	761.7	64	17.8	78	SW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.29	767.1	34	1.1	61	NE	11	4.9		0	0			0	0		
Key West, Fla.			30.02	762.5	75.2	24.0	64	S	8	3.6		5c	Sm'e	W		0	0		
Kittyhawk, N. C.			30.03	762.7	39	3.9	100	NE	18	8.0			10n			0.41	10.4	Sleet	
Knoxville, Tenn.			29.87	758.7	52	11.1	93	NE	8	3.6			10s			0.75	19.1		
La Crosse, Wis.			30.36	771.1	31	— 0.6	58	E	4	1.8			2k			0	0		
Leavenworth, Kan.			30.13	765.3	41	5.0	65	E	10	4.5			10s		E	0	0		
Lexington, Ky.			30.02	762.5	32	0.0	79	NE	18	8.0		0	0			0.06	1.5		
Long Branch, N. J.			29.93	760.2	33	0.6	69	NW	25	11.2		0	0			0	0		
Louisville, Ky.			30.13	765.3	36	2.2	28	N	24	10.7		2ks	2c	NE	NE	0.21	5.3		
Lynchburg, Va.			30.04	763.0	43	6.1	28	NE	4	1.8			10s		NE	0	0		
Malone, N. Y.																			
Marquette, Mich.			30.49	774.4	23	— 5.0	60	W	4	1.8		0	0			0	0		
Memphis, Tenn.			29.94	760.5	52	11.1	93	N	9	4.0			10s			0.37	9.4		
Milwaukee, Wisconsin			30.36	771.6	29	— 1.7	77	NE	15	6.7		0	0			0	0		
Mobile, Ala.			29.93	760.2	64	17.8	83	SW	3	1.3			10n		SW	1.12	28.4	Light rain	
Montgomery, Ala.			29.86	758.9	62	16.7	94	S	4	1.8		10cs	Haze			0.36	9.1		
Morgantown, W. Virginia			30.17	766.3	26	— 3.3	61	N	2	0.9		0	2s			0	0		
Mt. Washington, N. H.			29.50	749.3	— 5	—20.6	101	NW	10	4.5			Fog			0	0		
Nashville, Tenn.			29.90	759.0	45	7.2	75	NE	10	4.5		10k	0	NW		0.78	19.8		
New Haven, Conn.			29.86	758.2	27	— 2.8	66	N	24	10.7		1cs	0	NW		0	0		
New London, Conn.			29.82	757.4	30	— 1.1	57	NW	24	10.7		0	0			0	0		
New Orleans, La.			29.86	758.4	63	17.2	83	S	8	3.6			10ks		SW	2.85	72.4	Threatening	
Newport, R. I.																			
New York, N. Y.			29.94	760.5	29	— 1.7	67	NW	21	9.4		0	0			0	0		
Norfolk, Va.			30.05	763.3	40	4.4	47	N	8	3.6			10s			0	0		
North Platte, Neb.			29.78	756.4	46	7.8	84	SE	4	1.8			10s			0.21	5.3		
Omaha, Neb.			30.26	768.3	34	1.1	62	NE	8	3.6		8c	0	NW		0.06	1.5		
Oswego, N. Y.			30.08	764.0	22	— 5.6	72	WNW	12	5.4		4c	Haze	NW		0	0		
Peck's Beach			30.00	762.0	31	— 0.6	59	N	20	8.9		8ks	0	W		0	0		
Pembina, D. T.			30.14	765.5	38	3.3	75	SE	16	7.2			10s			0	0		
Philadelphia, Penn.			30.00	762.0	29	— 1.7	46	N	22	9.8		2c	0	W		0	0		
Pike's Peak, C. T.			29.98	761.5	12	—11.1	100	NE	6	2.7			10s			0.08	2.0		
Pittsburgh, Penn.			30.19	766.8	26	— 3.3	76	N	4	1.8		2k	0	NW		0	0		
Port Huron, Mich.			30.27	768.8	25	— 3.9	63	N	24	10.7		2k	0	N		0	0		
Portland, Maine			29.68	753.9	21	— 6.1	71	NW	18	8.			10s			0	0		
Portland, Or.			30.05	762.7	54	12.2	87	NW	2	0.9		8k	Haze			0	0		
Punta Rassa, Fla.			30.03	762.7	70.1	21.2	79	SE	13	5.8		10cs	Sm'e	SE		0	0		
Rochester, N. Y.			30.09	764.3	22	— 5.6	85	NW	20	8.9		2c	0	NW		0	0		
Salt Lake City, Utah			30.13	765.3	59	15.0	48	SE	4	1.8		0	0			0	0		
Sandy Hook, N. J.			29.89	759.2	30	— 1.1	67	NW	30	13.4		1c	0			0	0		
San Diego, Cal.			30.07	763.8	55	12.8	87	N	4	1.8			10s		N	0	0		
San Francisco, Cal.			30.04	763.0	50	10.0	86	SW	4	1.8			10s			0	0		
Santa Fe, N. M.			29.80	756.9	62	16.7	39	SW	4	1.8		5c	0	SW		0	0		
Savannah, Georgia			29.93	760.2	63	17.2	66	SW	8	3.6		1c	Sm'e			0	0		
Shreveport, La.			29.91	759.7	60	15.6	94	N	4	1.8			10n		N	0.02	0.5	Threatening	
Springfield, Mass.			29.82	757.4	27.5	— 2.5	63	NW	25	11.2		2k	0	NW		0	0		
St. Louis, Mo.			30.14	765.5	37	2.8	70	NE	12	5.4		10cs	0	E		0.17	4.3		
St. Marks, Fla.			29.94	760.5	65	18.3	90	S	6	2.7		5ck	2k	W	SW	0	0		
St. Paul, Minn.			30.30	769.6	35	1.7	61	SE	4	1.8		10 k	0	W		0	0		
St. Paul's Island, Alaska			30.13	765.3	27	— 2.8	76	NE	21	9.4		0	1k			0	0		
Squan Beach, N. J.			29.94	760.5	31	— 0.6	79	NW	18	8.0		0	0			0	0		
Toledo, Ohio			30.26	768.6	29	— 1.7	78	N	14	6.3		0	0			0	0		
Tybee Island, Ga.			29.93	760.2	65	18.3	64	SW	6	2.7		2c	2s	W		0	0		
Vicksburg, Miss.			29.89	759.2	58	14.4	93	E	1	0.4			Fog			0.83	21.1	Fog	
Virginia City, Mon.			29.89	759.2	38	3.3	71	SE	2	0.9		0	2s			0	0		
Washington, D. C.			30.08	764.0	32	0.0	61	NW	16	7.2		5cs	2s	W	NW	0	0		
Wilmington, N. C.			29.92	760.0	52	11.1	79	E	16	7.2			10s		E	0.03	0.8		
Wood's Hole, Mass.			29.74	755.4	28	— 2.2	58	NW	20	8.9		0	0			0	0		
Wytheville, Va.			29.76	755.9	39	3.3	91	E	4	1.8			10n			0.42	10.7	Light rain	
Yankton, D. T.			30.29	769.4	31	— 0.6	79	NE	1	0.4		2c	Haze	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.10	764.5	83	28.3		NE	7	3.1		5c	0	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.99	761.7	75	23.9		E				2c	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.78	756.4	70	21.1	84	SE	2.4	1.1		8c	0	SW		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	77	25.0		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.28	769.1			77	25.0		E	7	3.1		2ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.92	760.1	76	24.4	76	Calm	0	0		0	2k			0	0		Robert Mason.
St. Georges, Bermudas			29.83	757.7	64.5	18.1	81	SW	0.7	3.0		5ck	8ks	W		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.10	764.5	67	19.4	71	NE			2	0	5k			0	0		E. P. Church.
Makawao, Maui, S. I.			30.06	763.5	57	13.9	81	Calm	0	0		0	1ks			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. Mc'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.31	769.9	18.0	— 7.8	47	SE	10	4.5			10ks			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	67	19.4	93	SSE	1.0	0.4		2c	2k	SSE		0.01	0.3		C. Partridge.
St. John's, Newfoundland			29.42	747.3	32	0.0	84	SW				2c	5s			0.40	10.2		John Delaney.
St. John's, Porto Rico, W. I			30.10	764.6	77.7	25.7	72	SE			1	1ks	0			0	0		Leon M. Acuña.
Elyria, Ohio			30.21	767.3	27	— 2.8	77	N	12	5.4		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.37	746.0			32	0.0		E				1cs	0	W		0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 22, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.92	759.9	65.8	18.8		NNE			2		2			0	0		Charnot.
Algiers			29.98	761.5	64.0	17.8	72	NW			1		10			0	0		Peter.
La Calle			30.17	766.2	50.4	10.2		S			2		1			0	0		Kuntz.
Tunis			30.19	766.7	77.0	25.0	38	SW			3		6			0	0		Jacques.
Sfax			30.16	766.0	68.7	20.4		NW			3		1			0	0		Chauvey.
Saida			29.88	759.0	66.2	19.0		NE			2		0			0.079	2.0		Grosjean.
Tebessa					71.4	21.9		SE			3		1			0	0		Colin.
Geriville			29.87	758.7	71.2	21.8		SE			5		8			0.036	1.0	Rain	Bernadach.
Laghouat			29.89	759.3	71.6	22.0	36	SE			2		8			0	0		Poinsignon.
Biskra			29.94	760 5	79.3	26.3		E			3		6			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.74	755.5	66.4	19.1	23	SW			7		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.67	753.7	48.2	9.0	40	W			6		10			0.055	1.4		I. R. Observatory.
Eperies			29.60	751.7	57.2	14.0	56	NW			2		10		E	0	0		Julius Mikolik.
Gratz			29.60	751.8	72.3	22.4	37	SW			5		2			0	0		Andreas Rospini.
Hermannstadt			29.67	753 7	68.4	20.2	29	W			4		5			0	0		Prof. Reissenberger.
Kremsmünster			29.58	751.2	66.9	19.4	31	N			3		7			0.421	10.7		Prof. C. Wagner.
Lemberg			29.53	750.0	52.5	11.4	48	W			5		9			0.071	1.8	Rain	Dr. T. Stanecki.
Ny'regyhaza			29.61	752.1	68.0	20.0	37	S			5		9			0	0		Habzsuda Daniel.
Pola			29.95	760.6	59.7	15.4	46	S			1		9cs			0	0		I. R. Hydrographic Office
Szegedin			29.64	752.8	73.8	23.2	30	W			3		2			0	0		Karl Stancel.
Trieste			29.91	759.7	63.5	17.5	46	SW			2		2			0.055	1.4	Showery	Prof. V.-Farolfi.
Vienna			29.65	753.1	59.7	15.4	44	NE			1		3			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.66	753.4			45.9	7.7	66	ESE			1		10s		WNW	0.276	7.00		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.91	759.7	44.0	6.7		NW	27	12.1			7			0	0		William Boswell.
Annanhill																			
Ardrossan			29.99	761.7	48	8.9		WNW			2		0					Haze	William McNeil.
Armagh Observatory			29.97	761.2	50.0	10.0		ENE	10	4.5			8						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St John's Col.																			
Bidston, Liverpool Obs.			29.92	760.0	48.0	8.9		ESE			2		5					Mist	John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.92	760.0	46.7	8.2		ENE			1		8						J. Drever, for L'd Rosse.
Bradford			29.89	759.2	45.6	7.6		NE			2		2						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.03	762.7	82.4	28.0		NE			4		2						T. H Hunt.
Bywell																			
Cambridge Observatory			29.92	760.0	47.1	8.4		E			1		7						H. Todd.
Cape Town, (Cape Colony)			29.84	757.9	81.2	27.3		NW			2		2						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.87	758.7			87.4	30.8	29	S	7	3.1			1						The Staff, for E. J. Stone.
Cardington			29.93	760.2	47.0	8.3		E					9						John McLaren.
Carlisle			29.96	761.0	51.0	10.6		Calm					2			0	0		T Bell, for J. Cartmell.
Chatham, School M. E			29.90	759.4	42.4	5.8		NE			2		10						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.80	756.9	81.0	27.2		NW			1		10						Sgt. W. F. Hopkins
Dartmoor			29.92	760.0	38.2	3.4		E			4		10					Drizzling	R. E. Power.
Donaghadee			30.00	762.0	46	7.8		ESE			4		0						J. Mac Gowan, Jr.
Dover			29.88	758.9	43	6.1		NE			4		9					Rain	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			29.91	759.7	49.8	9.9		ENE	2.6	1.2			0					Haze	Thomas Mackereth
Falmouth Observatory			29.80	756.9	45.7	7.6		E	25	11.2			10						The Staff.
Fort Napier, (Natal)			30.04	763.0	69.2	20.7		NE			3		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.86	758.4	57.0	13.9		E			1		10						B. G. Clare for Prof. Curtis.
Gibraltar, (Mediterranean)			29.97	761.2	68.5	20.3		SSW			5		3						Sergt. E. G. Baker.
Glasgow Observatory			29.96	761.0	52.2	11.2		W			1		2						James Gray.
Great Yarmouth			29.94	760.5	46	7.8		NE			2		3						G. T. Watson.
Greenwich Royal Obs.			29.90	759.4	43.3	6.3		ENE			1		10						The Staff, for G. B. Airy.
Guernsey			29.73	755.1	50.5	10.3		SE			1		10					Fog	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			29.89	757.2	46.7	8.2		ENE					5						F. J. Rigley, for L. J. Cross.
Halifax, (Nova Scotia)			29.55	750.6	41.1	5.1		N			4		1						Corp'l J. Y. Thompson.
Helston			29.76	755.9	53	11.7		E			6		10						Dr. W. B. Mavle.
Holyhead			29.91	759.7	49	9.4		ENE			4		0						John Tilston.
Hull Park																			
Kew Observatory			29.90	759.4	42.1	5.6		ENE	20	8.9			10					Threatening	The Staff.
Kingstown			29.69	754.1	47	8.3		E			5		10						George Mitchell.
Lampeter																			
Leicester Museum			29.94	760.5	46.0	7.8		E			3		4						William J. Harrison
Llandudno			29.92	760.0	48.5	9.2		E					1						Dr. James Nicol.
Malta, (Mediterranean)			30.11	764.8	62.0	16.7		SE			1		8k						Lt. Sergt. E. Dowling.
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.96	761.0	47	8.3		NNW			1		8						William D. Penny.
Nassau, (Bahamas)			30.02	762.5	74.8	23.8		S			3		8						Surg.-Maj. J. Jameson.
North Shields			29.96	761.0	44	6.7		N			2		4						John Wm. Irvine.
Nottingham			29.94	760.5	49.4	9.7		NE			4		4k		NE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			29.93	760.2	43.0	6.1		E			3		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.84	757.9	41	5.0		E			2		10					Rain	J. Lucas, for R. Main
Plymouth			29.81	757.2	46	7.8		E			6		10						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochyfoel																			
Roche's Point			29.84	757.9	47	8.3		E			5		10						W. Kennedy.
Saint Ann's Head			29.85	758.2	42	5.6		E			3		10					Rain	John C. Walker.
Saint Helier, (Jersey)			29.78	756.4	55.2	12.9		SE			1		10						A. P. Amy.
Sandwick Manse, (Orkneys)			29.90	759.4	42.6	5.9		NW	30	13.4			8						Rev. C. Clouston
Scarborough			29.93	760.2	43.3	5.7		NNE			3		5		NW				F. Shaw.
Scutari, (Turkey)			29.99	761.7	61.0	16.1		SW			1		0					Light haze	Sergt. W. H. Lyne.
Sheffield			29.93	760.2	49.6	9.8		SSE			3		4			Blank	Blank		W. F. Cooper.
Sidmouth																			
Silloth Rectory			29.96	761.0	49.7	9.8		NE			2		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			29.93	760.2	50.0	10.0		NNE			1		3						Rev. C. J. Steward.
Stonyhurst Observatory			29.90	759.4	49.2	9.6		NE			1		3					Haze	The Staff.
Stornoway, Lewis C. (Hebr.)			29.98	761.5	48	8.9		NNW			4		7						John Smith.
Strathfield Turgiss			29.90	759.4	42.5	5.8		NE			1-2		10					Rain	Rev Charles H. Griffith
Streatley Vicarage			29.93	760.2	42.5	5.8		NNE			3		10						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.75	755.6	36	2.2		N			6		6					Snow	William Lawrence.
Taunton College																			
Thurso			29.92	760.0	44	6.7		NNW			6		7						John Trotter.
Truro Royal Institution			29.77	756.1	48	8.9		E			6		10					Rain	W Newcombe.
Valencia Observatory			29.84	757.9	54.9	12.7		NE	13	5.8			10					Drizzling	The Staff.
Wick																			
Wisbeach																			
Worthing			29.86	758.4	42.3	5.7		NE			3		10					Rain	William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.63	752.5	33.6	0.9	82	NW			4		5					Snow & hail.	
Faröe			29.69	754.2	39.9	4.4	90	N			2		10					Snow	
Godthaab, (Greenland)			29.87	758.6	38.5	3.6		ENE			4		2						
Stykkisholm, (Iceland)			30.10	764.5	41.0	5.0	72	W			4		8						
Thorshavn, (Faröe)			29.96	760.9	38.8	3.8	81	N			6		5						
Vestervig			29.63	752.6	40.3	4.6	53	NW			4		3						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.84	758.1	66.0	18.9	44						1ck						Normal School.
Alençon			29.78	756.5	59.0	15.0	69	SW			1		10			0.18	4.6		Normal School.
Amiens			29.78	756.4	45.0	7.2	77	NE			3		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.82	757.4	46.2	7.9	86	NE			1		10		NE	0.079	2.00		Normal School.
Besançon			29.80	756.9	65.1	18.4	20	S			6		8		SW	0	0		Normal School.
Bourges			29.90	759.5	56.3	13.5	82	SE			2		8		SW	0	0		Normal School.
Brest			29.72	755.0	60.3	15.7	85	SW			3		5		SW	0	0		Naval Observatory.
Caen			29.79	756.6	56.3	13.5	80	NW			2		10		SW	0.425	10.8		Normal School.
Carcassonne																			
Chartres			29.76	755.9	57.7	14.3		NNW			2		10			0.059	1.5		Normal School.
Chaumont			29.73	755.1	59.2	15.1		WNW			4		10		WNW	0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			29.76	755.9	54.0	12.2	87	NNW			2		10		NNE	0.039	1.0		Normal School.
Orleans																			Normal School.
Paris			29.74	755.5	59.0	15.0		NE			2		10			0.063	1.6	Mist	National Observatory.
Parthenay			29.82	757.4	60.8	16.0	78	W			2		5		SW	0.236	6.0		Normal School.
La Roche sur Yon			29.83	757.6	67.6	19.8	73	SW			4		8		E	0.098	2.5		Normal School.
Rouen			29.80	756.8	49.8	9.9	86	NE			2		10			0.142	3.6		Normal School.
Saint Lo			29.79	756.6	60.8	16.0	78	NW			2		8		NW	0	0		Normal School.
Villefranche			29.97	761.2	59.5	15.3	85	SSE			2		10		NNE	0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.67	626.5			42.8	6.0	94	E	7.4	3.32			10			0.382	9.7		—. Falguère.
Montsouris (near Paris)			29.74	755.5	58.3	14.6	78	N	2.1	0.94			10kn			0.083	2.1	Rain	Marié Davy.
Perpignan	29.72	75[illegible].9			57.4	14.1	89	NE	4.2	1.89			10			0.154	3.9		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pier e, (Martinique)																			
Tours			29.81	757.1	59.2	15.1	75	SW			1		10		W	0	0		C. Marquet.
Versailles, (near Paris)			29.72	754.8	60.4	15.8	71	N			2		10			0.020	0.52		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.80	756.8	59.0	15.0	77	SSE	11.2	5.0			0			0	0		H. Le Leo, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.81	757.1	38.7	3.7	94	NW			3		10			0.335	8.5	Rain & hail.	Prof. Hoh.
Berlin			29.77	756.1	49.1	9.5	57	NW			5		9			0	0		Prof. Arndt.
Breslau			29.75	755.7	44.8	7.1	39	W			6		9			0	0		Dr. P. Neugebauer.
Carlsruhe			29.82	757.3	43.9	6.6	91	N			2		10			0.032	0.8		A. Senz.
Cassel			29.74	755.3	51.1	10.6	44	NW			2		4			0	0		Dr. H. Möhl.
Cologne			29.87	758.7	46.6	8.1	76	N			3		7			0	0		Dr. Garthe.
Emden			29.80	759.3	44.8	7.1	63	NW			2		3			0.008	0.2		Prof. Prestel.
Frankfort on the Main			29.93	760.3	43.5	6.4	66	NE			1		10			0.150	3.8		Physical Society.
Friedrichshafen			29.73	755.1	64.4	18.0	40	NW					5			0.354	9.0		M. Wilhelm.
Hamburg			29.79	756.7	44.6	7.0	41	NW			6		7			0.004	0.1		W. Reinert.
Kiel			29.74	755.3	42.3	5.7	67	W			4		10			0	0		Prof. G. Karsten.
Königsberg			29.45	747.9	34.0	1.2	34	NW			6		4			0.067	1.7	Snow & rain.	Prof. E. Luther.
Köslin			29.80	757.0	34.9	1.6		NW			4		7			0.032	0.8		Dr. T gert.
Leipsic			29.82	757.4	45.1	7.3	38	WNW			2		9			0	0		Prof. Bruhns.
Münster			29.85	758.3	48.0	8.9	58	NW			2		9			0	0		Prof. E. Heis.
Posen			29.69	754.1	41.0	5.0	62	W			8		8			0	0		Dr. Magener.
Strassburg, (in Alsace)			29.78	756.5	55.9	13.3	58	NE					10			0.319	8.1		Hartwig and Tülk.
Stuttgart			29.76	755.9	53.1	11.7	72	N					10			0	0		Mr. Würth.
Thorn			29.57	751.0	41.2	5.1	47	W			6		9			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.16	766.1	47.7	8.7	68	NE			7		10			0.134	3.4		Prof. Flesch.
Wustrow			29.72	754.7	41.4	5.2	58	NW			6		7			0	0		E. F[illegible]chütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.89	759.2	59.9	15.5	62	ESE	4.3	1.9			9	E		0.008	0.2	Rain	
Mondovi			29.85	758.2	59.7	15.4	51	SSE			2		10			0	0		
Genoa			29.97	761.3	59.9	15.5	61	E	11.2	5.0			10	S		0.016	0.4		
Pavia			30.28	769.1	66.6	19.2	37	WSW			4		4	SW		0	0		
Verona			29.85	758.1	60.3	20.7	40	SW			4		5			0	0		
Padua			29.85	758.3	64.8	18.2	36	SW	12.5	5.6			7	SW		0	0		
Parma																			
Bologna			29.87	758.8	65.3	18.5	18	SSW			8		2	S		0	0		
Livorno			29.98	761.6	61.5	16.4	58	S	10.5	4.7			7			0	0		
Urbino			29.98	761.4	59.5	15.3	37	SSW			4		5			0	0		
Ancona			29.94	760.4	64.8	18.2	52	SE			2		9			0	0		
Siena			29.97	761.1	61.9	16.6	50	SSW	1.3	0.6			7	S		0	0		
Rome			30.04	763.1	65.8	18.8	40	[illegible]	14.3	6.4			7			0	0		
Naples, O.U.			30.13	765.2	65.5	18.6	52	SW			2		3	SW		0	0		
Lecce			30.07	763.7	64.6	18.1	28	SSW	15.7	6.1			1			0	0		
Cosenza			30.08	763.9	66.2	19.0	35	WNW			4		0			0	0		
Catania, (Sicily)			30.13	765.2	62.6	17.0	57	W			4		0			0	0		
Filiposto																			
Palermo			29.92	760.0	64.4	18.0	57	NE			4		9			0	[illegible]		
Sub-Series.																			
Naples, S. R.	29.58	751.3			64.4	18.0	48	SW			4		[illegible]		W	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			29.91	759.7	51.1	10.6		NE			4								
Groningen			29.80	756.8	45.1	7.3		NNW			4								
Helder			29.88	759.0	43.2	6.2		NW			3								
Utrecht			29.84	757.9	49.3	9.6	44	NNW			2		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.64	752.4	33.1	0.6	78	NW	12.3	5.5			2			0	0		
Christiania			29.49	749.0	37.8	3.2	47	W	17.7	7.9			6			0	0		
Tromsö			29.13	739.9	41.0	5.0	95	NE			2		5			0.256	6.5		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.71	754.6			61.9	16.6	57	N	8.7	3.9			6						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.57	751.1	39.4	4.1	70	W	31	14			10						Astronomical Obs.
Wilna			29.33	745.0	31.5	— 0.3	64	W	43	19			10					Snow	Astronomical Obs.
Dorpat			29.89	759.2	30.9	— 0.6	39	NW	11	5			9						Physical Cabinet.
St. Petersburg			29.95	735.2	25.7	— 3.5	68	W	16	7			4						Central Physical Obs.
Kieff			29.47	748.6	54.5	12.5	47	W	16	7			5						Physical Cabinet.
Nikolaiev			29.66	753.3	63.1	17.3	51	S	25	11			0						
Kertch			29.93	760.2	58.5	14.7	56	SW	20	9			2						Lagorio.
Moscow			29.20	741.7	32.9	0.5	59	W	13	6			7						Meteorological Obs.
Lugan			29.51	749.5	60.4	15.8	50	SW	31	14			5						Meteorological Obs.
Archangel			29.12	739.7	39.9	4.4	56	ESE	13	6			10						Ogorodnikof.
Tiflis			30.07	763.6	63.5	17.5	23	Calm	0	0			2						Physical Obs.
Astrakhan			30.07	763.8	57.3	13.5	45	SSW	17	7.5			0						Sebastianof.
Kasan			29.08	738.6	35.2	1.9	82	SSW	10	4.5			10						Physical Cabinet.
Orenburg			29.79	756.6	40.8	4.9	78	SW	10	4.5			10						Tschernischef.
Ekaterinburg			29.61	752.1	34.7	1.5	94	SW	13	6			10					Snow & rain.	Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.81	757.1	44.1	6.7	88	NE	4	2			5					Rain	Meteorological Obs.
Yeniseisk			30.12	765.0	37.9	3.3	50	E	17	7.5			7						Yarks.
Irkutsk																			Usolzef.
Oorga			30.14	765.6	19.0	— 7.2	72	W	4	2			0						Mossin.
Peking (China)			30.64	752.8	62.4	16.9	41	SSW	10	4.5			7						Physical Observatory
Nertchinsk			30.43	747.5	33.6	0.9	87	NNE	16	7			8						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurd kof.
Knopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			29.85	758.1	63.5	17.5	49	SW	13.4	6.0			6			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.17	740.9	27.7	— 2.4	52	NNE			5		8			0.03	0.8		
Hernosand			29.19	741.3	34.9	1.6	34	NW			3		4			0	0		
Stockholm			29.25	742.9	29.8	— 1.2	26	NNW			5		8			0	0		
Wisby			29.41	747.1	29.5	— 1.4	88	N			7		4			0.01	0.3		
Sub-Series.																			
Upsala			29.30	744.3	30.4	— 0.9	56	NW			4		7		NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.45	722.5			52.5	11.4	64	SW			2		10			0	0	Rain	The Observatory.
Zurich	28.11	714.1			60.4	20.8	28	W			2		4			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.9mm.; Thermometer, —1°.6 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.09	764.2	64.4	16.9	63	W			1		5					Rain	
Constantinople			30.02	762.6	64.4	18.0	41	SW	11	5			0			0	0		
Fao, (Persian Gulf)			29.92	760.0	84.2	29.0		NW			3		0						
Salonica			29.97	761.1	68.2	20.1		NW			1		0						
Valona			30.03	762.7	59.7	15.4		S			3		2						
Varna			29.84	758.0	73.4	23.0		SW			3		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.16	766.1	24	— 4.4		Calm	0	0			10s		NW	0	0		
Chatham, N. B.			29.60	751.8	43	6.1	78	N	9	4.0		8cs	2ks	N	N	0.04	1.0		
Charlottetown, P. E. Island			29.52	749.8	37	2.8	90	NW	13	5.8			10s			0.16	4.1		
Fort Garry, Manitoba			30.39	771.9	30	— 1.1	94	N	10	4.5		0	2n		N	0.23	5.8		
Halifax, N. S.			29.43	747.5	41	5.0	82	N	12	5.4			10n			0.01	0.3		
Kingston, Ontario			30.14	765.5	27	— 2.8	98	NW	2	0.9			10s			0	0		
Montreal, Quebec			30.00	762.0	28	— 2.2	65	W	15	6.7		5k	5ks	N		0.01	0.3		
Ottawa, Ontario			30.05	763.3	23	— 5.0	79	NW	12	5.4			10s		NE	0	0		
Parry Sound, Ontario			30.21	767.3	24	— 4.4	62	N	11	4.9		2c	2s	N	N	0	0		
Port Dover, Ontario			30.20	767.1	29	— 1.7	77	NW	4	1.8		10k	0	N		0	0		
Port Stanley, Ontario			30.21	767.3	30	— 1.1	58	NW	15	6.7			10n		N	0	0		
Quebec, Quebec			29.87	758.7	26	— 3.2	100	SW	17	7.6			10n		SW	0.06	1.5	Heavy snow	
Saugeen, Ontario			30.23	767.8	26	— 3.3	88	N	6	2.7		5ks	0	NE		0	0		
Stayner, Ontario			30.22	767.6	25	— 3.9	66	NW	10	4.5			10n		NW	0	0		
Sydney, C. B.			29.36	745.7	38	3.3	79	N	7	3.1			10n			0.01	0.3	Light rain	
Toronto, Ontario			30.20	767.1	27	— 2.8	70	NW	11	4.9			10n			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.99	761.7	30	— 1.1	78	NW	20	8.9		10k	0	W		0	0		
Alpena, Mich.			30.26	768.6	28	— 2.2	88	NW	10	4.5			10ks		W	0	0		
Atlantic City, N. J.			30.03	762.7	35	1.7	52	NW	12	5.4		0	0			0	0		
Augusta, Ga.			30.02	762.5	46	7.8	77	NE	5	2.2			10n		NE	0.21	5.3	Light rain	
Baltimore, Md.			30.10	764.5	36	2.2	53	NW	9	4.0		0	0			0	0		
Barnegat, N. J.			30.00	762.0	35	1.7	52	NW	14	6.3		0	0			0	0		
Benton, Montana			30.09	764.3	42	5.6	83	S	4	1.8		2k	Haze			0	0		
Bismarck, Dakota			30.[illegible]8	766.6	38	3.3	71	NE	2	0.9			10s			0	0		
Boston, Mass.			29.84	757.9	34	1.1	51	NW	10	4.5		0	0			0	0		
Breckenridge, Minn.			30.33	770.4	40	4.4	80	S	8	3.6		5k	0	NE		0	0		
Buffalo, N. Y.			30.17	766.3	27	— 2.8	66	NW	4	1.8			10s			0	0		
Burlington, Vt.			30.03	762.7	27	— 2.8	64	N	8	3.6			10s			0	0		
Cairo, Ill.			30.23	767.8	44	6.7	43	NE	8	3.6		10cs	0	SW		0	0		
Cape Hatteras, N. C.			30.04	763.0	45	7.2	60	NE	16	7.2		5c	2s	W		0.72	18.3		
Cape Henry, Va.			30.10	764.5	41	5.0	57	N	20	8.9		Haze	0			0	0		
Cape May, N. J.			30.06	763.5	35	1.7	61	N	18	8.0		0	0			0	0		
Charleston, S. C.			29.98	761.5	46	5.6	92	NE	12	5.4			10s		NE	1.13	28.7		
Cheyenne, W. T.			30.17	766.3	35	1.7	69	Calm	0	0		2c	0			0	0		
Chicago, Ill.			30.35	770.9	33	0.6	80	N	8	3.6		0	0			0	0		
Cincinnati, Ohio			30.27	768.8	35	1.7	52	N	4	1.8		0	0			0	0		
Cleveland, Ohio			30.23	767.8	32.3	0.2	84	NW	12	5.4			10ks			0	0		
Colorado Springs, Col.			30.18	766.6	35	1.7	63	N	5	2.2		2c	0	N		0	0		
Corsicana, Texas			30.03	762.7	48	8.9	94	N	12	5.4			10n			0.01	0.3	Light rain	
Davenport, Iowa			30.41	772.4	33	0.6	61	NE	8	3.6		0	Sm'e			0	0		
Denver, Col.			30.22	767.5	41	5.0	48	S	3	1.3		0	0			0	0		
Detroit, Mich.			30.27	768.8	27	— 2.8	66	NW	6	2.7		0	10ks		NW	0	0		
Dodge City, Kansas			30.01	762.2	42	5.6	74	NW	4	1.8		0	0			0	0		
Dubuque, Iowa			30.42	772.7	35	1.7	70	Calm	0	0			10s			0	0		
Duluth, Minn.			30.38	771.6	31	— 0.6	78	Calm	0	0			8s			0	0		
Eastport, Me.			29.68	753.9	35	1.7	70	N	10	4.5		10c	0	NW		0	0		
Erie, Penn.			30.17	766.3	30.5	— 0.8	78	NW	12	5.4			10s			0	0		
Escanaba, Mich.			30.40	772.1	19	— 7.2	70	N	4	1.8		Haze	0			0	0		
Fort Gibson, I. T.			30.17	766.3	46	7.8	76	N	8	3.6		0	5ks		NE	2.09	53.1	Clearing	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.29	769.4	40	4.4	82	S	2	0.9			8s		S	0	0		
Galveston, Texas			29.98	761.5	56	13.3	81	NW	30	13.4			10s		NW	0.33	8.4		
Grand Haven, Mich.			30.36	771.1	29	— 1.7	59	N	8	3.6		0	0			0	0		
Indianapolis, Ind.			30.26	768.6	34	1.1	61	N	4	1.8		0	0			0	0		
Indianola, Texas			30.07	763.8	55	12.8	73	NW	16	7.2		2c	2k	W		0.82	20.8		
Jacksonville, Fla.			29.88	758.9	69	20.6	75	NE	8	3.6			8s		SW	0	0		
Keokuk, Iowa			30.34	770.6	33	0.6	61	NE	7	2.7		0	0			0	0		
Key West, Fla.			29.94	760.5	76.2	24.5	82	S	8	3.6		5ck	5s	SW	SW	0	0		
Kittyhawk, N. C.			30.06	763.5	42	5.6	58	NE	22	9.8		2c	0	NW		0.09	2.3		
Knoxville, Tenn.			30.09	764.3	40	4.4	47	NE	14	6.3		1cs	Haze			0.04	1.0		
La Crosse, Wis.			30.36	771.1	38	3.3	63	[illegible]	5	2.2		5ck	0	S		0	0		
Leavenworth, Kan.			30.32	770.1	39	3.9	56	NE	1	0.4		0	0			0	0		
Lexington, Ky.			30.11	764.8	33	0.6	80	NE	9	4.0		8c	0	SW		0	0		
Long Branch, N. J.			30.01	762.2	38	3.3	46	NW	10	4.5		0	0			0	0		
Louisville, Ky.			30.25	768.3	36	2.2	61	N	2	0.9		5c	0			0	0		
Lynchburg, Va.			30.12	765.0	41	5.0	33	E	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.41	772.4	26	— 3.3	63	W	8	3.6		0	0			0	0		
Memphis, Tenn.			30.13	765.3	45	7.2	47	N	9	4.0		0	10s			0	0		
Milwaukee, Wisconsin			30.40	772.1	30	— 1.1	78	N	8	3.6		0	Fog			0	0		
Mobile, Ala.			29.90	759.4	60	15.6	88	N	4	1.8			10s		NE	0.04	1.0		
Montgomery, Ala.			29.94	760.5	56.5	13.1	78	E	8	3.6			10s		E	0.26	6.6		
Morgantown, W. Virginia			30.21	767.3	32	0.0	69	N	2	0.9		0	0			0	0		
Mt. Washington, N. H.			29.79	756.7	20	— 6.7	100	NW	26	11.6		0	Fog			0	0		
Nashville, Tenn.			30.14	765.5	43	6.1	42	NE	8	3.6		5k	0	W		0	0		
New Haven, Conn.			29.96	761.0	32	0.0	60	N	13	5.8		0	2s			0	0		
New London, Conn.			29.93	760.2	36	2.2	46	NW	12	5.4		0	0			0	0		
New Orleans, La.			29.88	758.9	65.5	18.6	81	NE	4	1.8		5cs	0	SW		0.05	1.3		
Newport, R. I.																			
New York, N. Y.			30.00	762.0	34	1.1	61	NW	20	8.9		0	0			0	0		
Norfolk, Va.			30.11	764.8	40	4.4	47	NE	11	4.9		0	0			0	0		
North Platte, Neb.			29.94	760.5	42	5.6	91	S	3	1.3		0	Fog			0.08	2.0		
Omaha, Neb.			30.35	770.9	37	2.8	71	SE	2	0.9		5ck	0	N		0	0		
Oswego, N. Y.			30.14	765.5	28.3	— 2.1	75	NNW	8	3.6			10s			0	0		
Peck's Beach			30.07	763.8	35	1.7	61	NW	16	7.2		Haze	Haze			0	0		
Pembina, D. T.			30.35	770.9	32	0.0	91	N	12	4.5			10s			0.03	0.8		
Philadelphia, Penn.			30.07	763.8	34	1.1	51	NW	16	7.2		2c	0	N		0	0		
Pike's Peak, C. T.			30.12	765.0	15	— 9.4	83	NE	6	2.7		1c	0	NE		0	0		
Pittsburgh, Penn.			30.22	767.6	27	— 2.8	77	NW	3	1.3		10k	0	NW		0	0		
Port Huron, Mich.			30.25	768.3	29	— 1.7	78	NW	11	4.9			10s			0			
Portland, Maine			29.[illegible]3	757.7	35	1.7	63	W	6	2.7		2cs	0	NW		0	0		
Portland, Or.			30.14	765.5	56	13.3	81	SW	8	3.6			10s			0	0		
Punta Rassa, Fla.			29.96	761.0	64	17.8	94	SE	20	8.9			10ks		SW	1.85	47.0		
Rochester, N. Y.			30.14	765.5	28	— 2.2	88	NW	14	6.3			10s			0	0		
Salt Lake City, Utah			30.09	764.3	53	11.7	60	SE	4	1.8		0	0			0	0		
Sandy Hook, N. J.			29.98	761.5	34	1.1	61	NW	12	5.4		0	Haze			0	0		
San Diego, Cal.			30.11	764.8	54	12.2	93	NW	4	1.8			10s		NW	0	0		
San Francisco, Cal.			30.20	767.1	55	12.8	93	Calm	0	0		0	Fog			0	0	Fog	
Santa Fe, N. M.			29.96	761.0	39	3.9	34	Calm	0	0		0	0			0	0		
Savannah, Georgia			29.96	761.0	50	10.0	93	NE	12	5.4			10s			1.44	36.6	Threatening	
Shreveport, La.			30.02	762.5	53	11.7	86	NE	16	7.2			10n		NE	0.27	6.9	Light rain	
Springfield, Mass.			29.92	760.0	34	1.1	69	NW	10	4.5		2k	0	W		0	0		
St. Louis, Mo.			30.34	770.6	33	0.6	61	NE	9	4.0		5c	0	NE		0	0		
St. Marks, Fla.			29.87	758.7	64	17.8	94	NW	2	0.9			10ks		W	0.10	2.5		
St. Paul, Minn.			30.29	769.4	40	4.4	64	E	1	0.4		10c	0			0	0		
St. Paul's Island, Alaska			30.11	764.8	25	— 3.9	74	N	11	4.9		0	1k			0	0		
Squan Beach, N. J.			29.97	761.2	35	1.7	61	NW	8	3.6		0	0			0	0		
Toledo, Ohio			30.32	770.1	31	— 0.6	60	NW	8	3.6		0	0			0			
Tybee Island, Ga.			29.96	761.0	53	11.7	93	NE	20	8.9			10s			0.24	6.1	Threatening	
Vicksburg, Miss.			30.00	762.0	55	12.8	68	NE	1	0.4			10s		NE	0	0		
Virginia City, Mon.			29.83	757.7	46	7.8	60	Calm	0	0		Haze	5s			0	0		
Washington, D. C.			30.12	765.0	34	1.1	56	NW	15	6.7		0	0			0	0		
Wilmington, N. C.			30.05	763.3	43	6.1	51	NE	11	4.9			10s		NE	0.37	9.4		
Wood's Hole, Mass.			29.88	758.9	37	2.8	54	NW	8	3.6		0	0			0	0		
Wytheville, Va.			29.91	759.7	34	1.1	61	NW	2	0.9		0	0			0	0		
Yankton, D. T.			30.32	770.1	41	5.0	57	SW	2	0.9		5c	2s	NW	NE	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.13	765.3	80	26.7		E	5	2.2		5ck	Haze	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.01	762.2	85	23.9		E					10n			0.10	2.5		L. V. Bigard.
Havana, Cuba, W. I.			29.71	754.6	79	26.1	86	S	4.8	2.2		10pck	0	S		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.20	767.1	75	23.9		E	7	3.1		2k	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			78	25.6		NE	13	5.8		2ck	5k	NE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	76	24.5	76	Calm	0	0		5k	10ks		NE	0	0		Robert Mason.
St. Georges, Bermudas			29.85	758.2	65.5	18.6	73	SW	6.6	3.0		8ks	5k	SW		0.330	8.38		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	62	16.7	73	S			2	5c	5k	S		0	0		E. P. Church.
Makawao, Maui, S. I.			30.06	763.5	61	16.1	88	Calm	0	0		8c	2cs			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.18	766.6	14.0	10.0	100	NW	12	5.4			10n			0	0	Snow	J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	61	16.1	93	SSE	4.0	1.8		0	2k			0	0		C. Partridge.
St. John's, Newfoundland			29.29	744.0	35	1.7	95	SW				Haze	Haze			0.30	7.6		John Delaney.
St. John's, Porto Rico, W. I.			30.08	764.0	79.9	26.6	65	S			1	1ck	0			0	0		Leon M. Acuña.
Elyria, Ohio			30.22	767.6	30	− 1.1	78	NW	12	5.4			10s			0	0		H. M. Redington.
Indianola, Iowa	29.44	747.8			40	4.4		E				1cs	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 23, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.88	759.0	65.3	18.5		SE			2		2			0.039	1.0		Charnot.
Algiers			29.92	760.0	62.6	17.0	50	ENE			1		10			0.217	5.5	Fog	Peter.
La Calle			30.09	764.2	62.1	16.7		N			3		4			0	0		Kuntz.
Tunis			30.04	763.0	71.8	22.1	59	NE			3		4			0	0		Jacques.
Sfax			29.92	760.0	71.8	22.1		NE			3		1			0	0		Chauvey.
Saïda			29.84	758.0	62.1	16.7		NNW			4		3			0	0		Grosjean.
Tebessa					80.1	26.7		S			4		3			0	0		Colin.
Gertville			29.75	758.1	77.7	25.4		NNW			3		7			0.315	8.0	Rain	Bernadach.
Laghouat			29.81	757.2	77.9	25.5	22	NE			4		8			0	0		Poinsignon.
Biskra			29.83	757.6	84.4	29.1		WSW			5		7			0.039	1.0	Rain	Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.78	756.4	63.7	17.6	46	SW			5		8			0.028	0.7	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.69	754.1	49.6	9.8	55	W			5		10			0	0		I. R. Observatory.
Eperies			29.67	753.7	50.4	10.2	76	SE			2		10			0.183	4.65	Rain	Julius Mikolik.
Gratz			29.68	753.9	61.5	16.4	61	SSE			2		8			0	0		Andreas Rospini.
Hermanstadt			29.72	754.8	64.0	17.8	28	WNW			4		8			0	0		Prof. Reissenberger.
Kremsmünster			29.84	757.9	46.0	7.8	89	W			3		10			0	0		Prof. C. Wagner.
Lemberg			29.59	751.6	50.7	10.4	62	SW			5		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.77	756.1	59.7	15.4	82	N			3		10			Blank	Blank		Habsuda Daniel.
Pola			29.85	758.2	56.7	13.7	88	SSE			3		10s			0.239	6.03		I. R. Hydrographic Office
Szegedin			29.77	756.2	58.6	14.8	70	W			4		10			0	0		Karl Stancel.
Trieste			29.85	758.3	56.8	13.8	84	Calm			0		10			00.62	1.6	Rain	Prof. V. Farolfi.
Vienna			29.78	756.5	49.8	9.9	72	W			1		10n			0.158	4.0	Rain	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.77	756.2			4.90	9.8	58	N			1		9ks		N	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.06	763.5	41.0	5.0		NNW	13	5.8			9			0	0		William Boswell.
Annanhill																			
Ardrossan			30.06	763.5	49	9.4		S			1		7						William McNeil.
Armagh Observatory			30.06	763.5	50.0	10.0		NNE			4		10						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.02	762.5	45.7	7.6		WNW			1		10					Mist	John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.05	763.3	50.6	10.3		E			1		8						J. Dreyer, for Ld Rosse.
Bradford			30.00	762.0	45.7	7.6		NE			2		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.00	762.0	84.6	29.2		NE			2		4						T. H Hunt.
Bywell																			
Cambridge Observatory			30.03	762.7	46.0	7.8		N			1		10						H. Todd.
Cape Town, (Cape Colony)			30.01	762.2	70.0	21.1		NW			2		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.04	763.0			70.7	21.5	58	S	23	10.3			2						The Staff, for E. J. Stone.
Cardington			30.05	763.3	49.0	9.4		NE					9						John McLaren.
Carlisle			30.05	763.3	49.1	9.5		Calm					10			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.00	762.0	48.8	9.3		N			1		9						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.80	756.9	81.5	27.5		Calm			0		5						Sgt. W. F. Hopkins
Dartmoor			30.04	763.0	44.0	6.7		E			6		4						R. E. Power.
Donaghadee			30.06	763.0	58	14.4		N			3		5						J. Mac Gowan, Jr.
Dover			30.00	762.0	48	8.9		NE			3		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.01	762.2	48.8	9.3		ESE	4.0	1.8			10					Mist	Thomas Mackereth.
Falmouth Observatory			29.98	761.5	46.8	8.2		ENE	17	7.6			3						The Staff.
Fort Napier, (Natal)			29.89	759.0	79.8	26.6		E			2		2						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			30.02	762.5	58.0	14.4		NE			1		3						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			29.94	760.5	68.2	20.1		SSW			5		4						Sergt. E. G. Baker.
Glasgow Observatory			30.04	763.0	44.9	7.2		E			1		10						James Gray.
Great Yarmouth			30.04	763.0	43	6.1		NE			4		6						G. T. Watson.
Greenwich Royal Obs.			30.02	762.5	50.3	10.2		NE			1		10						The Staff, for G. B. Airy.
Guernsey			29.91	759.7	47.5	8.6		NE			3		8					Mist	Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.01	762.2	45.6	7.6		ENE					10						F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.50	749.3	45.3	7.4		NW			2		9						Corp'l J. Y. Thompson.
Helston			29.92	760.0	53	11.7		E			4		8						Dr. W. B. Moyle.
Holyhead			30.04	763.0	49	9.4		NE			2		0						John Tilston.
Hull Park																			
Kew Observatory			30.02	762.5	50.0	10.0		NE	12	5.4			9						The Staff.
Kingstown			30.05	763.3	47	8.3		NNE			3		6						George Mitchell.
Lampeter																			
Leicester Museum			30.05	763.3	47.0	8.3		E			1		10						William J. Harrison
Llandudno			30.01	762.2	50.6	10.3		N					2						Dr. James Nicol.
Malta, (Mediterranean)			30.03	762.7	66.8	19.3		SE			1		4k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.02	762.5	45	7.2		Calm			0		8						William D. Penny.
Nassau, (Bahamas)			29.89	759.2	69.9	21.1		SE			2		8						Surg.-Maj. J. Jameson.
North Shields			30.08	764.0	44	6.7		NE			2		8						John Wm. Irvine.
Nottingham			30.06	763.5	45.6	7.5		SE			2		10k		SE				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.0	762.5	44.2	6.8		SSE			1		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			29.99	761.7	51	10.6		Calm			0		4						J. Lucas, for R. Main.
Plymouth			29.96	761.0	49.5	9.7		E			4		6						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.02	762.5	52	11.1		NNE			3		5						W. Kennedy.
Saint Ann's Head			30.00	762.0	50	10.0		Calm			0		0						John C. Walker.
Saint Helier, (Jersey)			29.87	758.7	52.6	11.4		E			4		8						A. P. Amy.
Sandwick Manse (Orkneys)			30.05	763.3	40.8	4.9		NNW	17	7.6			8						Rev. C. Clouston.
Scarborough			30.05	763.3	44.2	6.8		NNE			2		10						F. Shaw.
Scutari, (Turkey)			29.97	761.2	64.4	18.0		SW			1		1					Light haze	Sergt. W. H. Lyne.
Sheffield			30.03	762.7	46.1	7.8		ESE			1		9			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.05	763.3	49.0	9.4		NNE			2		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.03	762.7	44.1	6.7		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.03	762.7	46.1	7.8		NE			1		10					Mist	The Staff.
Stornoway, Lewis C. (Hebr.)			30.06	763.5	46	7.8		SE			2		7						John Smith.
Strathfield Turgiss			30.00	762.0	49.7	9.8		E			1		9						Rev Charles H. Griffith
Streatley Vicarage								ENE			3		8						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.95	760.7	36	2.2		N			5		5						William Lawrence.
Taunton College																			
Thurso			30.05	763.3	44	6.7		N			3		7						John Trotter.
Truro Royal Institution			29.89	759.2	54	12.2		E			4		4						W. Newcombe.
Valencia Observatory			30.03	762.7	54.2	12.3		ENE	18	8.0			3						The Staff.
Wick																			
Wisbeach																			
Worthing			29.95	760.7	48.4	9.1		ESE			4		10						William J. Harris.
York																			

Note.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.55	750.5	36.7	2.6	65	NW			7		7						
Fanöe			29.75	755.7	40.3	4.6	50	W			4		5						
Godthaab, (Greenland)			29.59	751.5	36.5	2.5		NE			4		0						
Stykkisholm, (Iceland)			29.86	758.4	43.3	6.3	81	SE			2		8						
Thorshavn, (Faröe)			30.02	762.6	39.4	4.1	54	SW			2		8						
Vestervig			29.61	752.2	38.1	3.4	60	N			7		0						

Note.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.85	758.2	62.6	17.0	77						5ns						Normal School.
Alençon			29.85	758.2	53.6	12.0	80	NE			1		10			0	0		Normal School.
Amiens			29.98	761.4	54.0	12.2	74	NE			3		5		NE	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			29.97	761.2	53.2	11.8	43	E			3		8		W	0.154	3.90		Normal School.
Besançon			29.90	759.5	60.8	16.0	69	SW			2		5		W	0.673	17.1		Normal School.
Bourges			29.95	760.8	55.8	13.2	73	NE			1		10		W	0.118	3.0		Normal School.
Brest			29.80	756.8	53.4	11.9	71	NE			3		5		NE	0.217	5.50		Naval Observatory.
Caen			29.92	759.9	49.5	9.7	79	E			2		10		SW	0.079	2.0		Normal School.
Carcassonne																			
Chartres			29.74	755.4	53.2	11.8		ENE			2		10			0	0		Normal School.
Chaumont			29.90	759.5	53.4	11.9		WNW			2		10		WNW	1.063	27.0		Normal School.
Le Mans																			Normal School.
Mirecourt			29.94	760.4	50.2	10.1	74	NNW			2		10		W	0	0		Normal School.
Orleans																			Normal School.
Paris			29.95	760.6	51.6	10.9		ESE			2		10			0.004	0.1	Mist	National Observatory.
Parthenay			29.81	757.1	62.6	17.0	49	SE			2		5		SW	0.039	1.0		Normal School.
La Roche sur Yon			29.86	758.5	63.7	17.6	59	SE			2		8		NE	0	0		Normal School.
Rouen			29.93	760.2	54.4	11.9	50	ESE			2		10			0.134	3.4		Normal School.
Saint Lo			29.92	760.0	54.5	12.5	86	E			3		10		E	0	0		Normal School.
Villefranche			29.88	758.0	61.3	16.3	71	E			2		10			0.213	5.4		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.70	627.5			50.9	10.5	63	SSW	16.6	7.50			6		SW	0.331	8.4		—. Falguère.
Montsouris (near Paris)			29.94	760.5	50.4	10.2	76	E	1.6	0.70			10kn		E	0	0	Mist	Marié Davy.
Perpignan	29.72	754.8			62.6	17.0	71	NE	7.4	3.33			4			0.244	6.2		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pier e, (Martinique)																			
Tours			29.87	758.8	62.2	16.8	49	W			1		5		WNW	0.067	1.7		C. Marquet.
Versailles, (near Paris)			29.94	760.4	51.8	11.0	71	NE			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			29.76	756.1	62.2	16.8	91	N	2.7	1.2			0			0	0		H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.78	756.4	49.1	9.5	50	NW			4		3			0	0		Prof. Hoh.
Berlin			29.80	756.8	46.4	8.0	16	SW			7		7			0.020	0.5		Prof. Arndt.
Breslau			29.76	756.0	43.9	6.6	56	W			8		7			0	0		Dr. P. Neugebauer.
Carlsruhe			29.93	760.2	49.3	9.6	55	N			2		10			0.835	21.2		A. Sens.
Cassel			29.84	757.8	47.1	8.4	56	NW			2		7			0	0		Dr. H. Möhl.
Cologne			29.95	760.6	48.0	8.9	65	NW			2		0			0	0		Dr. Garthe.
Emden			30.00	761.9	42.6	5.9	81	NNW			5		2			0.008	0.2		Prof. Prestel.
Frankfort on the Main			30.00	762.0	53.1	11.7	43	NNW			2		5			0	0		Physical Society.
Friedrichshafen			29.91	759.6	50.0	10.0	80	W					10			0.055	1.5		M. Wilhelm.
Hamburg			29.84	758.0	41.2	5.1	40	NW			7		7			0.083	2.1	Rain & hail	W. Reinert.
Kiel			29.75	755.6	41.0	5.0	50	NW			6		7			0	0		Prof. G. Karsten.
Königsberg			29.43	747.6	36.5	2.5	61	SW			4		7			0.008	0.2	Snow	Prof. E. Luther.
Köslin			29.73	755.2	35.4	1.9		W			8		5			0	0		Dr. T gert.
Leipsic			29.84	758.0	45.5	7.5	44	NW			5		9			0.012	0.3		Prof. Bruhns.
Münster			29.91	759 7	45.1	7.3	63	NW			4		3			0	0		Prof. E. Heis.
Posen			29.65	753 2	43.5	6.4	43	SW			9		8			0.004	0.1		Dr. Magener.
Strassburg, (in Alsace)			29.95	760.6	48.7	9.3	67	N					10			0.008	0.2		Hartwig and Tülk.
Stuttgart			29.92	760.0	47.1	8.4	77	NW					10			0.197	5.0		Mr. Würth.
Thorn			29.53	750.0	38.3	3.5	88	W			3		9			0.181	4.6	Snow	Dr. R senbalg.
Treves, (Trier)			29.88	759.0	50.0	10.0	47	W			3		4			0	0		Prof. Plesch.
Wustrow			29.69	754.2	34.5	1.4	75	NW			6		9			0.039	1.0	Snow & hail	E. F. chütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.85	758.2	61.3	16.3	62	WSW	0.7	0.3			9	E		0	0		
Mondovi			29.84	757.8	59.5	15.3	52	NNW			2		10			0	0		
Genoa			29.89	759.2	61.2	16.2	67	Calm	0	0			4	S		0	0		
Pavia			29.85	758.1	63.3	17.4	56	W			2		0	W		0	0	Rain	
Verona			29.81	757.2	63.7	17.6	55	E			2		10			0.055	1.5	Rain	
Padua			29.82	757.5	57.7	14.3	76	NNE	6.9	3.1			9	WSW		0	0		
Parma																			
Bologna			29.85	758 1	62.1	16.7	24	W			6		4	W		0	0		
Livorno			29.91	759.7	60.4	15.8	74	S	3.8	1.7			10			0	0		
Urb no			29.87	758.7	59.7	15.4	62	WSW			4		10			0	0		
Ancona			29.87	758 6	64.8	18.2	42	SSE			2		6			0.008	0.2		
Siena			29.87	758.7	62.8	17.1	61	W	3.8	1.7			10	SW		0.067	1.7		
Rome			29.98	761.6	59.7	15.4	89	SSE	7.4	3.3			10	SSE		0	0		
Naples, O.U			30.05	763.2	66.4	19.1	64	W			2		9	WSW		0	0		
Lecce			30.10	764.5	60.8	16.0	77	S	32.2	14.4			10			0	0		
Cosenza			30.01	762.2	76.6	24.8	33	WNW			2		8	NW		0	0		
Catania, (Sicily)			30.11	764.7	63.7	17.6	73	SE			2		1	W		0	0		
Riposto																			
Palermo			29.92	759.9	72.9	22.7	39	NE			2		7			0	0		
Sub-Series.																			
Naples, S. R	29.51	749.6			62.2	16.8	66	SW			4		-k		SW	0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.02	762.6	46.8	8.2		NNE			4								
Groningen			29.89	759.2	43.2	6.2		NNW											
Helder			29.98	761.4	41.5	5.3		NW			4								
Utrecht			29.93	760.2	45.1	7.3	57	NNW			4		10						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.70	754.3	36.0	2.2	79	NNW	26.6	11.9			0			0	0		
Christiania			29.52	749.9	33.8	1.0	12	N	20.6	9.2			7			0	0		
Tromsö			29.63	752.6	35.1	1.7	96	NE			2		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.65	753.0			60.4	15.8	59	NW	15.0	6.7			7			Blank	Blank		

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.56	750.8	42.1	5.6	58	W	13	6			10						Astronomical Obs.
Wilna			29.54	750.4	30.0	— 1.1	82	S	8	3.5			10					Snow	Astronomical Obs.
Dorpat			29.50	749.3	31.8	— 0.1	56	W	11	5			10						Physical Cabinet.
St. Petersburg			29.39	746.4	30.7	— 0.7	59	NW	4	2			1						Central Physical Obs.
Kieff			29.71	755.7	45.9	7.7	49	SSW	9	4			10						Physical Cabinet.
Nikolaiev			29.81	757.2	64.2	17.9	57	Calm	0	0			4						
Kertch			29.86	758.9	61.8	16.3	60	SW	20	9			1						Lagorio.
Moscow			29.59	751.5	31.1	— 0.5	48	W	17	7.5			7						Meteorological Obs.
Lugan			29.68	753.8	55.4	13.0	64	NW	17	7.5			10						Meteorological Obs.
Archangel			29.26	743.3	37.4	3.0	66	N	4	2			10						Ogorodnikof.
Tiflis			29.93	760.3	70.0	21.1	17	NW	13	6			1						Physical Obs.
Astrakhan			30.11	764.8	61.8	16.3	46	SE	10	4.5			0						Sebastianof.
Kasan			29.50	749.2	36.7	2.6	55	W	13	6			7						Physical Cabinet.
Orenburg			29.94	760.5	62.2	16.8	78	SW	25	11			8						Tschernischef.
Ekaterinburg			29.69	754.2	45.3	7.4	40	S	13	6			6						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.01	762.3	41.7	5.4	87	NW	4	2			4						Meteorological Obs.
Yeniseisk			29.94	760.5	41.5	5.3	48	E	10	4.5			10						Marks.
Irkutsk																			Usolzef.
Oorga			30.24	768.1	23.7	— 4.6	65	Calm	0	0			0						Mossin.
Peking, (China)			29.85	758.3	54.5	12.5	13	NW	20	9			0						Physical Observatory.
Nertchinsk			29.84	757.8	31.3	— 0.4	57	NW	10	4.5			4						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.84	757.8	59.7	15.4	59	SW	23.3	10.4			9						Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.34	745.1	26.2	— 3.2	89	NNW			2		10			0	0	Light snow	
Hernosand			29.37	746.0	29.5	— 1.4	49	N			5		10			0	0		
Stockholm			29.32	744.7	37.4	3.0	18	SSE			1		8			0	0		
Wisby			29.33	744.9	34.2	1.2	72	S			3		10			0	0		
Sub-Series.																			
Upsala			29.39	746.5	27.3	— 2.6	97	NNE			2		10					Snow	Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.48	733.4			52.9	11.6	68	NNE			2		8			0.406	10.3		The Observatory.
Zurich	28.26	717.9			49.8	9.9	86	W			1		10			0.126	3.2	Rain	The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —1.9mm.; Thermometer, —1°.6 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.15	765.9	66.0	18.9	62	NW			1		0						
Constantinople			30.02	762.5	68.9	20.5	44	WSW	14.5	6.5			2		SW	0	0		
Fao, (Persian Gulf)			29.92	760.0	81.1	27.3		NW			4		2						
Salonica			30.09	764.2	75.0	23.9		SW			1		2						
Valona			30.02	762.6	65.7	18.7		S			3		8						
Varna			29.92	760.0	77.0	25.0		NW			2		2						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.93	760.2	36	2.2		Calm	0	0			10s		SW	0	0		
Chatham, N. B.			29.51	749.5	41	5.0	79	NW	1	0.4		5k	8ks			0	0		
Charlottetown, P. E. Island			29.49	749.0	39	3.9	79	W	3	1.3		2cs	10s			0	0		
Fort Garry, Manitoba			30.31	769.9	21	— 6.1	93	NE	10	4.5			2s		NE	0	0		
Halifax, N. S.			29.41	747.0	48	8.9	66	W	6	2.7		0	2ks		W	0	0		
Kingston, Ontario			29.91	759.7	35	1.7	72	Calm	0	0		0	0			0	0		
Montreal, Quebec			29.78	756.4	37	2.8	62	W	24	10.7		10c	0			0	0		
Ottawa, Ontario			29.84	757.0	37	2.8	71	SW	5	2.2		0	2n	SW	SW	0	0		
Parry Sound, Ontario			29.91	759.7	32	0.0	86	SW	4	1.8		5cs	5s	SW	SW	0.02	0.5		
Port Dover, Ontario			29.98	761.5	29	— 1.7	77	NW	7	3.1		2k	0	NW		0	0		
Port Stanley, Ontario			29.98	761.5	31	— 0.6	86	W	1	0.4		8ck	0	W		0	0		
Quebec, Quebec			29.69	754.1	36	2.2	80	SW	23	10.3		2k	0			0	0		
Saugeen, Ontario			29.93	760.2	31	— 0.6	79	SW	13	5.8		0	0			0	0		
Stayner, Ontario			29.93	760.2	33	0.6	61	NW	1	0.4		10k	10n			Blank	Blank	Light snow	
Sydney, C. B.			29.40	746.7	43	6.1	73	W	5	2.2			2ks	NW	NW	0	0		
Toronto, Ontario			29.94	760.5	36	2.2	57	SW	4	1.8		8k	8ks		W	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.84	757.9	41	5.0	73	NW	9	4.0		2cs	0	W		0	0		
Alpena, Mich.			29.89	759.2	30	— 1.1	89	NW	1	0.4			10ks		W	0.01	0.3		
Atlantic City, N. J.			29.91	759.7	41	5.0	64	NW	8	3.6		0	0			0	0		
Augusta, Ga.			29.82	757.4	49	9.4	78	NE	3	1.3			10n		NE	0.06	1.5	Light rain	
Baltimore, Md.			29.96	761.0	42	5.6	49	N	2	0.9		0	Sm'e			0	0		
Barnegat, N. J.			29.90	759.4	43	6.1	60	W	5	2.2		0	0			0	0		
Benton, Montana			30.05	763.3	52	11.1	60	SW	24	10.7			10s			0	0		
Bismarck, Dakota			30.03	762.7	32	0.0	79	SE	5	2.2		8k	0	S		0	0		
Boston, Mass.			29.73	755.1	44	6.7	52	NW	8	3.6		0	0			0	0		
Breckenridge, Minn.			30.13	765.3	33	0.6	89	N	8	3.6			10s			0	0		
Buffalo, N. Y.			29.93	760.2	31	— 0.6	79	SW	8	3.6			10s			0	0		
Burlington, Vt.			29.82	757.4	39	3.9	73	S	4	1.8		0	2s			0	0		
Cairo, Ill.			30.09	764.3	43	6.1	43	N	4	1.8		0	0			0	0		
Cape Hatteras, N. C.			29.95	760.7	46	7.8	67	NE	10	4.5		8cs	2s	W		0	0		
Cape Henry, Va.			29.98	761.5	53	11.7	61	N	4	1.8		5c	0			0	0		
Cape May, N. J.			29.93	760.2	42	5.6	58	NW	16	7.2		2c	0	W		0	0		
Charleston, S. C.			29.85	758.2	51	10.6	86	NE	16	7.2			10s		NE	0.10	2.5	Threatening	
Cheyenne, W. T.			29.93	760.2	50	10.0	64	W	28	12.5			10n			0	0		
Chicago, Ill.			29.98	761.5	37	2.8	48	SW	6	2.7		5ck	0	SW		0	0		
Cincinnati, Ohio			30.05	763.3	36	2.2	80	Calm	0	0			Sm'e			0	0		
Cleveland, Ohio			29.95	760.7	37.5	3.1	67	S	5	2.2		0	Sm'e			0	0		
Colorado Springs, Col.			29.94	760.5	46	7.8	47	NW	2	0.9		8k	0	NW		0	0		
Corsicana, Texas			30.10	764.5	46	3.8	76	N	6	2.7		0	0			0.04	1.0		
Davenport, Iowa			30.03	762.7	43	6.1	58	W	4	1.8		2ck	8s	W		0	0		
Denver, Col.			29.93	760.2	59	15.0	33	NW	9	4.0			10s		W	0	0		
Detroit, Mich.			29.95	760.7	33	0.6	61	NW	7	3.1		8c	0	W		0	0		
Dodge City, Kansas			29.61	752.1	56	12.8	29	SE	4	1.8		0	0			0	0		
Dubuque, Iowa			30.02	762.5	43	6.1	63	NW	2	0.9		10ck	0	NW		0	0		
Duluth, Minn.			30.07	763.8	35	1.7	52	N	8	3.6		8c	0	N		0	0		
Eastport, Me.			29.60	751.8	41	5.0	73	N	5	2.2			10s		NW	0	0		
Erie, Penn.			29.95	760.7	35	1.7	70	SW	4	1.8		2c	2s	W		0	0		
Escanaba, Mich.			29.91	759.7	33	0.6	79	N	16	7.2		5k	Haze	NE		0	0		
Fort Gibson, I. T.			30.06	763.5	42	5.6	91	Calm	0	0			Fog			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.94	760.5	41	5.0	78	SE	14	6.3		0	5s		SE	0	0		
Galveston, Texas			30.08	764.0	53	11.7	79	N	16	7.2		0	0			0.10	2.5		
Grand Haven, Mich.			29.94	760.5	38	3.3	55	SW	12	5.4			10s		N	0	0		
Indianapolis, Ind.			30.05	763.3	35	1.7	45	N	4	1.8		0	0			0	0		
Indianola, Texas			30.13	765.3	54	12.2	79	NW	6	2.7		0	0			0	0		
Jacksonville, Fla.			29.69	754.1	62	16.7	88	SW	4	1.8			9n		SW	0.71	18.0	Light rain	
Keokuk, Iowa			30.01	762.2	44	6.7	59	W	4	1.8		2cs	0			0	0		
Key West, Fla.			29.80	756.9	72.4	22.4	85	W	15	6.7			10ks		W	1.97	50.0	Threatening	
Kittyhawk, N. C.			29.97	761.2	43	6.1	75	N	8	3.6		5ck	5s			0	0		
Knoxville, Tenn.			29.94	760.5	39	3.9	47	N	12	5.4		5cs	Haze	SW		0	0		
La Crosse, Wis.			29.96	761.0	46	7.8	54	S	4	1.8		5ck	0			0	0		
Leavenworth, Kan.			30.06	763.5	41	5.0	48	S	1	0.4		0	Haze			0	0		
Lexington, Ky.			29.93	760.2	40	4.4	64	NE	2	0.9		0	0			0	0		
Long Branch, N. J.			29.90	759.4	44	6.7	51	NW	18	8.0		0	0			0	0		
Louisville, Ky.			30.03	762.7	38	3.3	50	NW	5	2.2		0	0			0	0		
Lynchburg, Va.			29.98	761.5	45	7.2	53	E	1	0.4		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.97	761.2	32	0.0	79	NW	12	5.4		5ck	5s	NW	N	0.02	0.5		
Memphis, Tenn.			30.07	763.8	45	7.2	53	N	5	2.2		0	0			0	0		
Milwaukee, Wisconsin			29.96	761.0	37	2.8	80	W	13	5.8		8ck	0	NW		0	0		
Mobile, Ala.			29.82	757.4	46	7.8	92	N	9	4.0			10s		N	0.66	16.8		
Montgomery, Ala.			29.83	757.7	48	8.9	96	N	8	3.6			10n		N	1.00	25.4	Light rain	
Morgantown, W. Virginia			29.98	761.2	38	3.3	62	Calm	0	0		0	Haze			0	0		
Mt. Washington, N. H.			29.79	756.7	21	— 6.1	100	N	12	5.4			Fog			0	0		
Nashville, Tenn.			30.01	762.2	44	6.7	35	N	4	1.8		0	Fog			0	0		
New Haven, Conn.			29.85	758.2	43	6.1	58	NNW	6	2.7		0	0			0	0		
New London, Conn.			29.82	757.4	46	7.8	47	NW	6	2.7		0	0			0	0		
New Orleans, La.			29.90	759.4	50	10.0	79	N	12	5.4		8k	0	N		0.62	15.7	Clearing	
Newport, R. I.																			
New York, N. Y.			29.88	758.9	38	3.3	62	NW	8	3.6						0	0		
Norfolk, Va.			29.98	761.5	45	7.2	60	W	4	1.8		8c	0	SW		0	0		
North Platte, Neb.			29.44	747.8	53	11.7	47	S	16	7.2		0	0			0	0		
Omaha, Neb.			29.96	761.0	43	6.1	54	Calm	0	0		2ck	0	N		0	0		
Oswego, N. Y.			29.92	760.0	35	1.7	70	W	8	3.6		Haze	2s			0	0		
Peck's Beach			29.92	760.0	42	5.6	66	N	14	6.3		4ks	Haze			0	0		
Pembina, D. T.			30.26	768.6	24	— 4.4	73	N	8	3.6		1k	0			0	0		
Philadelphia, Penn.			29.93	760.2	41	5.0	57	N	12	5.4		0	0			0	0		
Pike's Peak, C. T.			30.02	762.5	25	— 3.9	87	NW	24	10.7		2k	0	NW		0	0		
Pittsburgh, Penn.			30.00	760.0	33	0.6	69	NW	4	1.8		0	0			0	0		
Port Huron, Mich.			29.95	760.7	29	— 1.7	89	Calm	0	0			10s		SW	0	0		
Portland, Maine			29.71	754.6	46	7.8	77	NW	8	3.6		5ck	0	NW		0	0		
Portland, Or.			30.52	775.2	46	7.8	84	S	1	0.4			10s			0.27	6.9		
Punta Rassa, Fla.			29.75	756.6	72.1	22.3	90	SW	20	8.9			10s		SW	1.05	26.7		
Rochester, N. Y.			29.90	759.4	35	1.7	70	W	8	3.6			10s			0	0		
Salt Lake City, Utah			30.06	763.5	57	11.7	42	N	24	10.7		0	5s			0	0		
Sandy Hook, N. J.			29.88	758.9	38	3.3	71	W	18	8.0		0	Haze			0	0		
San Diego, Cal.			30.01	762.2	55	12.8	93	Calm	0	0			10s		SW	0	0		
San Francisco, Cal.			30.21	767.3	54	12.2	80	Calm	0	0		0	Sm'e			0	0		
Santa Fe, N. M.			29.75	755.6	50	10.0	39	Calm	0	0		8c	0	SW		0	0		
Savannah, Georgia			29.76	755.9	52	11.1	86	NE	12	5.4			10s		NE	0.41	10.4	Threatening	
Shreveport, La.			30.09	764.3	48	8.9	62	NNE	4	1.8		0	0			0.57	14.5		
Springfield, Mass.			29.80	756.9	44	6.7	51	W	4	1.8		0	Haze			0	0		
St. Louis, Mo.			30.11	764.8	44	6.7	36	E	2	0.9			10s			0	0		
St. Marks, Fla.			29.66	753.4	56	13.3	93	E	1	0.4		2ck	5ks		NE	2.95	74.9		
St. Paul, Minn.			29.97	761.2	38	3.3	63	N	8	3.6		8ck	0	NW		0	0		
St. Paul's Island, Alaska			29.99	761.7	26	— 3.3	75	NNW	4	1.8		0	10k			0	0		
Squan Beach, N. J.			29.89	759.2	42	5.6	50	NW	6	2.7			Haze			0	0		
Toledo, Ohio			29.97	761.2	40	4.4	48	SW	8	3.6		0	Sm'e			0	0		
Tybee Island, Ga.			29.75	755.6	55	12.8	93	NE	42	18.8		0	10s			0.05	1.3	Threatening	
Vicksburg, Miss.			30.05	763.3	49	9.4	42	NE	6	2.7		0	0			0.19	4.8		
Virginia City, Mon.			29.82	757.4	37	2.8	80	SW	8	3.6			10s			0	0		
Washington, D. C.			29.98	761.5	40	4.4	63	NW	8	3.6		0	Haze			0	0		
Wilmington, N. C.			29.93	760.2	47	8.3	77	NE	8	3.6			10s			0.04	1.0	Threatening	
Wood's Hole, Mass.			29.78	756.4	44	6.7	52	NW	8	3.6		0	0			0	0		
Wytheville, Va.			29.76	755.9	34	1.1	69	Calm	0	0		0	0			0	0		
Yankton, D. T.			30.00	762.0	43	6.1	75	NE	1	0.4		8ks	2s	NW	NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.11	764.8	81	26.7		E	4	1.8		5c	Haze	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.97	761.2	76	24.4		SE				5k	5k	SE		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.61	752.1	78	25.6	86	SW	3.6	1.6		10ck	0	SW		0.05	1.3		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.19	766.8	79	26.1		SE	17	7.6		9c	8s	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.21	767.3			77	25.0		SE	6	2.7		5ck	8k	SE		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.90	759.4	77	25.0	82	S	8.4	3.8			10k		S	0	0		Robert Mason.
St. Georges, Bermudas			29.79	756.7	64.0	17.8	83	NE	5.0	2.2			10k			0.485	12.32		C. F. Allen.
Honolulu, Oahu, S. I.			30.12	765.0	61	16.1	73	NE			1	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.																			F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.42	772.7	1.0	—17.2	100	NW	16	7.2		0	0			0.23	5.8		J. Fortescue.
Clifton, Jamaica, W. I.			30.06	763.5	64	17.8	93	SSE	2.0	0.9		2c	2k	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.48	748.8	39	3.9	90	NW				Haze	Haze			0.10	2.5		John Delaney.
St. John's, Porto Rico, W. I.			30.03	762.3	77.7	25.4	75	S			3	2ks	0			0	0		Leon M. Acuña.
Elyria, Ohio			29.96	761.0	38	3.3	90	N	12	5.4			10n			0	0		H. M. Redington.
Indianola, Iowa	29.14	740.1			45	7.2		S				0	0			0	0		G. C. Carpenter.

NOTE.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 24, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:48 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			29.80	759.3	63.3	17.4		NW			5		2			0.039	1.0		Charnot.
Algiers			29.87	758.7	61.2	16.2	79	WNW			3		10			0.524	14.3	Rain	Peter.
La Calle			29.96	761.0	62.8	17.1		SW			2		5			0	0		Kuntz.
Tunis			29.88	758.9	74.1	23.4	49	WNW			3		0			0.032	0.8		Jacques.
Sfax			29.78	756.4	70.2	21.2		NE			6		7			0.039	1.0		Chauvey.
Saida			29.82	757.6	55.8	13.2		WNW			3		6			0	0		Grosjean.
Tebessa					71.8	22.1		NW			5		6			0.197	5.0		Colin.
Geriville			29.87	758.8	55.9	13.3		NNW			3		6			0.039	1.0		Bernadach.
Laghouat			29.78	756.3	66.4	19.1	30	NW			4		2			0	0		Poinsignon.
Biskra			29.76	756.0				NW			5		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.02	762.6	47.1	8.4	74	NE			4		10			0.496	12.6	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.16	766.1	41.9	5.5	51	NNE			4		3			0	0		I. R. Observatory.
Eperies			30.04	762.9	47.3	8.5	34	N			3		1			0	0		Julius Mikolik.
Gratz			30.11	764.8	43.7	6.5	78	E			2		10			0.235	8.50		Andreas Rospini.
Hermannstadt			29.89	759.4	61.9	16.6	43	N			4		5			0	0		Prof. Reissenberger.
Kremsmünster			30.13	765.2	43.2	6.2	67	E			3		7			0	0		Prof. C. Wagner.
Lemberg			30.02	762.5	42.4	5.8	39	N			6		3			0	0		Dr. T. Stanecki.
Ny'regyhaza			30.05	763.2	50.7	10.4	44	N			3		0			0	0		Habzsuda Daniel.
Pola			29.92	759.9	58.1	14.5	90	SE			2		10s		SE	0.014	0.36		I. R. Hydrographic Office
Szegedin			29.98	761.4	56.5	13.6	46	W			1		10			0.366	9.30		Karl Stancel.
Trieste			29.93	760.1	56.7	13.7	85	ENE			1		10			0.457	11.6	Rain	Prof. V. Farolfi.
Vienna			30.11	764.7	46.8	8.2	35	NNE			1		8			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.98	761.6			46.9	8.3	48	E			2		6k		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.14	765.5	52.0	11.1		WNW	15	6.7			7			0	0		William Boswell.
Annanhill																			
Ardrossan			30.19	766.8	48	8.9		SW			2		8						William McNeil.
Armagh Observatory			30.22	767.6	52.8	11.6		SW			3		9						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.20	767.1	53.2	11.8		SE			1		6						John Hartnup, Jr.
Birr Castle, (Parsonstown).			30.20	767.1	56.5	13.6		Calm			0		3						J. Dre er. for L'd Rosse
Bradford			30.16	766.1	50.0	10.0		SE			1		8						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.04	763.0	82.0	27.8		NE			2		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.25	768 3	48.1	8.9		NNE			1		3					Haze	H. Todd.
Cape Town, (Cape Colony)			30.03	762.7	72.0	22.8		NW			1		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.06	763.5			77.1	25.1	44	S	12	5.4			0						Th Staff, for E. J. Stone.
Cardington			30.25	768.3	49.4	9.7		NE					6						John McLaren.
Carlisle			30.19	766.8	50.0	10.0		W					5			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.26	768.6	45.8	7.7		NE			1		8						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	85.0	29.4		SW			3		5						Sgt. W. F. Hopkins
Dartmoor			30.29	769.4	43.8	6.6		E			2		2						R. E. Power.
Donaghadee			30.21	767.3	55.1	12.8		E			3		5						J. Mac Gowan, Jr.
Dover			30.23	767.8	45	7.2		E			4		5						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.20	767.1	55.8	13.2		SE	3.2	1.4			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.24	768.1	48.4	9.1		ESE	17	7.6			1						The Staff.
Fort Napier, (Natal)			30.04	763.0	69.8	21.0		SE			4		10						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's Col ege			30.14	765.5	57.0	13.9		NE			1		2						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.09	764.3	63.5	17.5		W			4		7						Sergt. E. G. Baker.
Glasgow Observatory			30.16	766.1	49.8	9.9		WNW			1		10						James Gray.
Great Yarmouth			30.23	767.8	45	7.2		NE			2		3						G. T. Watson.
Greenwich Royal Obs.			30.24	768.1	48.2	9.0		ENE			1		8						The Staff, for G. B. Airy.
Guernsey			30.19	766.8	48	8.9		NE			4		4						Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.16	766.1	51.8	11.0		SSW					9						F. J. Rose, for L. J. Cross-
Halifax, (Nova Scotia)			29.64	752.8	51.7	10.9		NW			2		2						Corp'l J. Y. Thompson.
Helston			30.17	766.3	56	13.3		E			4		4						Dr. W. B. Neyle.
Holyhead			30.21	767.3	50	10.0		NW			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.24	768.1	47.0	8.3		NE	11	4.9									The Staff.
Kingstown			30.22	767.6	49	9.4		ESE			4		7					Mist	George Mitchell.
Lampeter																			
Leicester Museum			30.25	768.3	50.0	10.0		E			1		1						William J. Harrison
Llandudno			30.19	766.8	53.0	11.7		N					2						Dr. James Nicol.
Malta, (Mediterranean)			29.80	756.9	66.0	18.9		SW			1		10k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.15	765.8	50	10.0		NW			1		10						William D. Penny.
Nassau, (Bahamas)			29.88	758.9	72.0	22.2		W			4		7						Surg.-Maj. J. Jameson
North Shields			30.19	766.8	50	10.0		WSW			2		9						John Wm. Irvine.
Nottingham			30.26	768.6	52.5	11.4		NE			1		5c						E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.22	767.6	50.3	10.2					2		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.20	767.1	50	10.0		NE			1		7						J. Lucas, for R. Main.
Plymouth			30.21	767.3	50	10.0		ESE			2		5						John Merrifield.
Portishead																			
Prospect (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.18	766.6	54	12.2		SSE			3		5						W. Kennedy.
Saint Ann's Head			30.22	767.6	49	9.4		SSE			1		1						John C. Walker.
Saint Helier, (Jersey)			30.16	766.1	51.4	10.8		E			4		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.08	764.0	47.8	8.8		WNW	25	11.2			9						Rev. C. Clouston
Scarborough			30.20	767.1	50.7	10.4		SSW			1		8						F. Shaw.
Scutari, (Turkey)								SW			1								Sergt. W. H. Lyne.
Sheffield			30.22	767.6	50.8	10.4		S			1		8			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.20	767.1	54.6	12.6		W			3		0			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.24	768.1	44.1	6 7		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.19	766.8	51.8	11.0		W			1		8					Haze	The Staff.
Stornoway, Lews C. (Hebr).			30.13	765.3	50	10.0		NW			5		10					Rain	John Smith.
Strathfield Turgiss			30.23	767.8	50.8	10.4		E			1		4						Rev Charles H. Griffith
Streatley V carage			30.24	768.1	52.4	11.3		NE			3		6						Rev. John Slatter.
Sumburgh Head, (Shetland)			29.95	760.7	48	8.9		W			3		8						William Lawrence.
Taunton College																			
Thurso			30.10	764.5	49	9.4		W			5		6						John Trotter.
Truro Royal Institution			30.15	765.8	54	12.2		E			4		5						W Newcombe.
Valencia Observatory			30.17	766.3	55.8	13.2		ESE	17	7.6			4						The Staff.
Wick																			
Wisbeach																			
Worthing			30.23	767.8	46.3	7.9		NE			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.10	764.6	40.3	4.6	32	W			2		4						
Faröe			30.14	765.6	40.1	4.5	39	WNW			4		1						
Godthaab, (Greenland)			29.49	746.7	37.2	2.9		Calm			0		3						
Stykkisholm, (Iceland)			29.88	758.9	46.0	7.8	86	Calm			0		8						
Thorshavn, (Faröe)			30.00	761.9	43.9	6.6	77	N			4		6						
Vestervig			30.10	764.5	42.8	6.0	56	NW			6		4						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.69	754.0	57.2	14.0	98						10n						Normal School.
Alençon			30.11	764.9	51.8	11.0	50	NE			5		2			0	0		Normal School.
Amiens			30.16	766.1	52.2	11.2	86	NE			4		2		NE	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.16	766.0	49.1	9.5	33	NE			4		2		NNE	0	0		Normal School.
Besançon			29.96	761.0	59.9	15.5	49	E			6		0			0	0		Normal School.
Bourges			29.99	761.7	57.9	14.4	58	NE			8		2		NE	0	0		Normal School.
Brest			30.07	763.7	54.1	12.3	48	ENE			3		2		ENE	0	0		Naval Observatory.
Caen			30.15	766.8	45.9	7.7	66	NE			2		2c		NE	0.122	3.1		Normal School.
Carcassonne																			
Chartres			30.07	763.6	53.8	12.1		NNE			2		0			0	0		Normal School.
Chaumont			29.99	761.7	55.6	13.1		ENE			6		3		ENE	0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.00	762.1	50.9	10.5	54	NNE			4		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.10	764.5	52.0	11.1		NE			4		1c			0	0		National Observatory.
Parthenay			29.95	760.7	60.8	16.0	40	NE			4		0			0	0		Normal School.
La Roche sur Yon			30.01	762.2	61.9	16.6	46	NE			4		0			0	0		Normal School.
Rouen			30.15	765.9	54.3	12.4	36	NNW			4		0			0	0		Normal School.
Saint Lo			30.12	765.0	60.4	15.8	42	E			3		10		E	0.020	0.5		Normal School.
Villefranche			29.94	760.4	59.5	15.3	39	NE			6		10		NW	0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.65	626.1			39.2	4.0	97	ENE	18.6	8.33			10			0.106	2.7		—. Falguère.
Montsouris (near Paris)			30.08	764.1	53.4	11.9	41	NNE	9.2	4.11			1k			0	0		Marié Davy.
Perpignan	29.72	755.0			59.0	15.0	80	NE	3.6	1.67			10		NE	0.130	3.3		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.03	762.7	59.7	15.4	38	E			3		0			0	0		C. Marquet.
Versailles, (near Paris)			30.09	764.2	53.2	11.8	33	NE			3		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.04	763.0	55.2	12.9	58	ENE	2.0	0.9			4c			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.02	762.5	47.3	8.5	24	NW			4		2			0	0		Prof. Hoh.
Berlin			30.23	767.9	43.2	6.2	29	NE			3		8			0	0		Prof. Arndt.
Breslau			30.23	767.7	37.8	3.2	68	W			3		9			0	0		Dr. P. Neugebauer.
Carlsruhe			30.09	764.3	51.4	10.8	40	NE			2.5		9			0	0		A. Sens.
Cassel			30.11	764.9	51.1	10.6	50	N			2		5			0	0		Dr. H. Möhl.
Cologne			30.20	767.0	46.8	8.2	54	NNE			4		0			0	0		Dr. Garthe.
Emden			30.30	769.5	44.8	7.1	31	WNW			2		0			0	0		Prof. Prestel.
Frankfort on the Main			30.23	767.7	49.5	9.7	23	NE			2		1			0	0		Physical Society.
Friedrichshafen			30.02	762.6	50.0	10.0	62	NE					0			0	0		M. Wilhelm.
Hamburg			30.22	767.6	44.6	7.0	40	NW			4		3			0	0		W. Reinert.
Kiel			30.26	768.5	42.6	5.9	55	NE			2		1			0	0		Prof. G. Karsten.
Königsberg			30.01	762.2	36.0	2.2	60	NW			6		4			0.055	1.5	Snow	Prof. E. Luther.
Köslin			30.35	770.8	36.5	2.5		W			4		2			0.024	0.6		Dr. T gert.
Leipsic			30.20	767 1	42.8	6.0	52	NNW			2		8			0	0		Prof. Bruhns.
Münster			30.23	767.8	46.0	8.1	67	NW			2		0			0	0		Prof. E. Heis.
Posen			30.19	766.8	42.8	6.0	31	W			6–7		9			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.06	763.4	52.3	11.3	45	NE					2			0	0		Hartwig and Tülk.
Stuttgart			30.07	763.6	51.3	10.7	49	E					8			0	0		Mr. Würth.
Thorn			30.12	765.1	43.2	6.2	37	NW			5		5			0	0		Dr. [illegible]enbalg.
Treves, (Trier)			30.06	763.4	52.0	11.1	33	NW			6		0			0	0		Prof. Plesch.
Wustrow			30.21	767.3	39.2	4.0	56	W			3		4			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.84	758.0	57.7	14.3	75	NNW	2.5	1.1			9	E		0.055	1.5		
Mondovi			29.87	758 8	54.0	12.2	83	NW			2		10			0	0	Rain	
Genoa			29.84	757.8	62.6	17.0	59	W	1.3	0.6			10	W		0	0		
Pavia			29.86	758 5	63.0	17.2	58	NE			4		8	NE		0.063	1.6		
Verona			29.85	758.1	68.2	20.1	57	E			4		10			0	0		
Padua			29.87	758.6	61.3	16.3	69	ESE	11.2	5.0			10	S		0.094	2.4	Showery	
Parma																			
Bologna			29.84	757 9	65 7	18.7	19	ESE			4		6	ENE		0	0		
Livorno			29.84	757.8	60.4	15.8	78	NE	6.9	3.1			10			0	0		
Urbino			29.89	759.1	54.1	12.3	90	SE			2		10			0	0	Rain	
Ancona			29.89	759.1	56.5	13.6	84	SE			2		10			0.205	5.2	Rain	
Siena			29.84	758.0	54.7	12.5	94	ESE	1.8	0.8			10	SE		0.114	2.9	Rain	
Rome			29.76	756.0	63.5	17.5	72	ENE	11.9	5.3			10	SW		0	0	Rain	
Naples, O.U.			29.81	757.1	73.8	23.2	36	SW			2		10	SW		0	0		
Lecce			29 95	760.6	64.0	17.8	65	S	37.4	16.7			9			0	0		
Cosenza			29.87	758.6	70.3	21.3	44	W			2		8			0	0		
Catania, (Sicily)			29.96	760 9	63.1	17.3	67	ESE			4		8	W		0	0	Rain	
Lipposto																			
Palermo			29.67	753.6	79.0	26.1	36	E			4		10			0	0		
SUB-SERIES.																			
Naples, S. R.	29.31	744.5			68.4	20.2	46	NE			6		4k			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.25	768.4	48.6	9.2		NE			4								
Groningen			30.17	766.4	44.8	7.1		N			2								
Helder			30.23	767.8	42.4	5.8		NNW			2								
Utrecht			30.18	766.5	51.4	10.8	30	NNE			2		8						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.04	762.9	37.8	3.2	63	SSW	18.8	8.4			10			0.244	6.2	Snow	
Christiania			29.94	760.4	43.5	6.4	27	SSW	13.4	6.0			2			0	0		
Tromsö			29.66	753.4	32.4	0.2	90	SE			6		10			0	0		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.78	756.5			61.7	16.5	49	NNW	12.5	5.6			6						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.09	764.2	39.2	4.0	39	NW	13	6			8						Astronomical Obs.
Wilna			29.89	759.1	33.6	0.9	70	SSW	8	3.5			9						Astronomical Obs.
Dorpat			29.82	757.4	33.1	0.6	66	NNW	4	2			7					Snow	Physical Cabinet.
St. Petersburg			29.74	755.4	33.6	0.9	68	WNW	7	3			1						Central Physical Obs.
Kieff			29.91	759.8	47.7	8.7	48	SW	20	9			9						Physical Cabinet.
Nikolaiev			29.89	759.2	63.1	17.3	55	NW	4	2			9						
Kertch			29.89	759.3	60.8	16.0	65	S	17	7.5			6						Lagorio.
Moscow			29.60	751.9	32.7	0.4	62	W	10	4.5			9						Meteorological Obs.
Lugan			29.72	754.9	56.7	13.7	71	NW	8	3.5			10					Rain	Meteorological Obs.
Archangel			29.81	757.2	32.7	0.4	64	N	4	2			4						Ogorodnikof.
Tiflis			29.89	759.1	73.6	23.1	15	NNW	20	9			0						Physical Obs.
Astrakhan			30.08	764.0	69.1	20.6	41	SSW	8	3.5			3						Sebastianof.
Kasan			29.95	760.6	40.6	4.8	53	S	8	3.5			4						Physical Cabinet.
Orenburg			30.08	764.0	53.1	11.7	56	SE	4	2			8						Tschernischef.
Ekaterinburg			30.11	764.9	38.5	3.6	43	SW	20	9			0						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.20	767.1	58.1	14.5	54	Calm	0	0			4						Meteorological Obs.
Yeniseisk			30.03	762.7	46.0	7.8	47	alm	0	0			0						arks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			29.99	761.8	55.8	13.2	27	N	8	3.5			6						Physical Observatory
Nertchinsk			30.01	762.2	30.2	— 1.0	58	NW	10	4.5			2						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurd..kof.
Kuopio																			

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			29.92	760.0	54.5	12.5	55	NW	10.5	4.7			8			Blank	Blank	Rain	Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.81	757.2	33.8	1.0	68	NE			1		8			0	0		
Hernosand			29.80	757.0	34.2	1.2	62	S			1		8			0	0		
Stockholm			29.86	758.3	34.2	1.2	49	NW			5		8			0.04	0.1		
Wisby			29.97	761.2	33.1	0.6	71	WNW			5		2			0.09	2.4		
Sub-Series.																			
Upsala			29.88	758.8	36.0	2.2	54	NNW			4		8		NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.50	723.8			55.4	13.0	64	NNE			4		7			0	0		The Observatory.
Zurich	28.34	719.8			50.5	10.3	65	NE			2		9			0.071	1.8		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, —0.6mm.; Thermometer, —0°.2 C.; Relative Humidity, +7 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			30.13	765.2	66.7	19.3	70	NW			2		0						
Constantinople			30.06	763.4	70.9	21.6	40	SW	11	5			2		SW	0	0		
Fao, (Persian Gulf)			30.04	763.0	77.0	25.0		NW			3		5						
Salonica			30.07	763.8	75.2	24.0		SW			2		5						
Valona			29.99	761.8	74.5	23.6		S			6		8					Light rain...	
Varna			30.00	762.0	73.4	23.0		S			2		5						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.78	756.4	32	0.0		Calm	0	0			8s		SW	0	0		
Chatham, N. B.			29.59	751.6	44	6.7	71	Calm	0	0		5c	0			0	0		
Charlottetown, P. E. Island			29.61	752.1	43	6.1	68	NW	3	1.3		0	0			0	0		
Fort Garry, Manitoba			30.38	771.6	23	— 5.0	93	NE	1	0.4		2k	Haze	SW		0	0		
Halifax, N. S.			29.53	750.0	53	11.7	54	W	5	2.2		0	0			0	0		
Kingston, Ontario			29.72	754.9	33	0.6	84	NE	6	2.7			10ks		NE	0	0		
Montreal, Quebec			29.67	753.6	33	0.6	80	W	5	2.2			10s			0	0		
Ottawa, Ontario			29.64	752.8	33	0.6	73	W	6	2.7		10k	0	W		0	0		
Parry Sound, Ontario			29.82	757.4	27	— 2.8	77	N	14	6.3		2ck	5ks	N	N	0.02	0.5		
Port Dover, Ontario			29.75	755.6	31	— 0.6	89	NW	10	4.5			10n			0.07	1.8	Light snow..	
Port Stanley, Ontario			29.79	756.7	32	0.0	89	NW	15	6.7			10n		NW	0.10	2.5		
Quebec, Quebec			29.69	754.1	37	2.8	90	Calm	0	0			10n			0.02	0.5		
Saugeen, Ontario			29.86	758.4	26	— 3.3	82	W	10	4.5			10n		NE	0.15	3.8		
Stayner, Ontario			29.80	756.9	28	— 2.8	83	N	12	5.4			10n		N	0.15	3.8		
Sydney, C. B.			29.57	751.1	49	9.4	60		7	3.1		0	0			0	0		
Toronto, Ontario			29.74	755.4	33	0.6	85	N	10	4.5		2cs	5n	NE	NE	0.20	5.1	Clearing	

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.67	753.6	39	3.9	72	W	2	0.9		0	Haze			0	0		
Alpena, Mich.			29.94	760.5	26	— 3.3	76	N	14	6.3		2k	2s	N	N	0.04	1.0		
Atlantic City, N. J.			29.67	753.6	45	7.2	76	NE	12	5.4		2c	0			0	0		
Augusta, Ga.			29.82	757.4	44	6.7	92	NW	4	1.8		0	0			1.03	26.2		
Baltimore, Md.			29.67	753.6	47	8.3	62	NW	3	1.3		Haze	Sm'e			0	0		
Barnegat, N. J.			29.69	754.1	44	6.7	75	N	2	0.9		5c	0			0	0		
Benton, Montana			30.31	769.9	32	0.0	100	N	8	3.6			10n			0.13	3.3	Heavy snow	
Bismarck, Dakota			30.12	765.0	30	— 1.1	78	E	2	0.9			10s			0	0		
Boston, Mass.			29.62	752.3	47	8.3	55	NW	5	2.2		2c	Haze			0	0		
Breckenridge, Minn.			30.33	770.4	30	— 1.1	79	NE	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.65	753.1	32	0.0	89	NW	8	3.6			10n			0.09	2.3	Light snow.	
Burlington, Vt.			29.66	753.4	40	4.4	73	E	1	0.4		2k	5s			0.04	1.0		
Cairo, Ill.			29.88	758.9	52	11.1	59	N	2	0.9		5ck	Haze	NW		0	0		
Cape Hatteras, N. C.			29.64	752.8	48	8.9	77	NE	22	9.8		8cs	0	NW		0.03	0.8		
Cape Henry, Va.			29.70	754.4	58	14.4	58	N	10	4.5		Haze	0			0	0		
Cape May, N. J.			29.67	753.6	47	8.3	76	Calm	0	0		0	0			0	0		
Charleston, S. C.			29.82	757.4	50	10.0	77	NW	8	3.6		0	Sm'e			0.63	16.0		
Cheyenne, W. T.			29.92	760.0	31	— 0.6	100	N	24	10.7			10n		N	0.04	1.0	Light snow.	
Chicago, Ill.			30.06	763.5	32	0.0	79	NW	19	8.5			10s		N	0	0		
Cincinnati, Ohio			29.90	759.4	37	2.8	79	N	12	5.4			10n		N	0	0	Light snow.	
Cleveland, Ohio			29.79	756.7	33.2	0.7	71	NW	14	6.3			10ks		NW	0.14	3.5		
Colorado Springs, Col.			29.81	757.2	38	3.3	100	NW	13	5.8			10n			0.07	1.8	Light rain.	
Corsicana, Texas			29.83	757.7	51	10.6	78	SE	2	0.9		2cs	5k		SE	0	0		
Davenport, Iowa			30.19	766.8	32	0.0	49	N	16	7.2		0	0			0	0		
Denver, Col.			29.95	760.7	36	2.2	90	Calm	0	0			10n			0.60	15.2	Light rain.	
Detroit, Mich.			29.84	757.9	34	1.1	79	N	15	6.7			10ks		N	0.01	0.3	Light snow.	
Dodge City, Kansas			29.38	746.2	48	8.9	85	E	14	6.3		5k	0	S		0.15	3.8		
Dubuque, Iowa			30.19	766.8	32	0.0	70	N	8	3.6		0	0			0	0		
Duluth, Minn.			30.32	770.1	29	— 1.7	67	NE	4	1.8		0	0			0	0		
Eastport, Me.			29.63	752.6	43	6.1	75	Calm	0	0		5ck	0	W		0	0		
Erie, Penn.			29.67	753.6	32	0.0	79	NW	8	3.6			10n			0	0	Light snow.	
Escanaba, Mich.			30.11	764.8	27	— 2.8	77	N	22	9.8		Haze	2s			0	0		
Fort Gibson, I. T.			29.83	757.7	53	11.7	60	E	10	4.5			10ks			0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.21	767.3	36	2.2	61	SE	18	8.0			8s		SE	0.06	1.5		
Galveston, Texas			29.91	759.7	61	16.1	70	S	12	5.4		0	0			0	0		
Grand Haven, Mich.			30.02	762.5	34	1.1	61	N	20	8.9		5k	0	N		0	0		
Indianapolis, Ind.			29.96	761.0	34	1.1	44	N	16	7.2		0	0			0	0		
Indianola, Texas			29.90	759.4	65	18.3	93	S	10	4.5		0	0			0	0		
Jacksonville, Fla.			29.86	758.4	52	11.1	79	W	8	3.6			8s		W	0.03	0.8		
Keokuk, Iowa			30.10	764.5	34	1.1	61	NE	12	5.4		2c	0			0	0		
Key West, Fla.			29.90	759.4	70.8	21.6	67	N	24	10.7		2k	Haze	NW		0	0		
Kittyhawk, N. C.			29.68	753.9	46	7.8	78	N	22	9.8		2k	Haze	NE		0	0		
Knoxville, Tenn.			29.83	757.7	42	5.6	77	SW	3	1.3		1cs	Haze			0	0		
La Crosse, Wis.			30.23	767.8	29	— 1.7	66	N	9	4.0		0	0			0	0		
Leavenworth, Kan.			29.98	761.5	46	7.8	67	E	10	4.5			10s		NE	0	0		
Lexington, Ky.			29.87	758.7	38	3.3	72	NW	28	12.5			10s			0	0		
Long Branch, N. J.			29.68	753.9	42	5.6	75	N	2	0.9		Haze	0			0	0		
Louisville, Ky.			29.87	758.7	42	5.6	66	NW	16	7.2			10s			0	0		
Lynchburg, Va.			29.69	754.1	48	8.9	59	NW	1	0.4			Haze			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.17	766.3	26	— 3.3	63	NW	16	7.2		5cs	0	NW		0	0		
Memphis, Tenn.			29.92	760.0	49	9.4	63	Calm	0	0		5cs	Sm'e			0	0		
Milwaukee, Wisconsin			30.13	765.3	30	— 1.1	79	N	20	8.9		5k	0	NE		0.01	0.3		
Mobile, Ala.			29.95	760.7	52	11.1	66	NW	1	0.4		0	Haze			0	0		
Montgomery, Ala.			29.94	760.5	48.5	9.2	81	NW	1	0.4		0	Sm'e			0.17	4.3		
Morgantown, W. Virginia			29.74	755.4	33	0.6	89	NE	11	4.9			10n			0	0	Light snow.	
Mt. Washington, N. H.			29.71	754.6	27	— 2.8	100	SE	12	5.4			Fog			0	0		
Nashville, Tenn.			29.86	758.4	48	8.9	71	W	2	0.8		2k	Fog	NW		0	0		
New Haven, Conn.			29.66	753.4	47	8.3	55	NE	6	2.7		2c	0	W		0	0		
New London, Conn.			29.66	753.4	50	10.0	51	N	4	1.8		2c	0	W		0	0		
New Orleans, La.			29.95	760.7	57.5	14.2	78	Calm	0	0		0	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			29.68	753.9	44	6.7	57	E	8	3.6		0	Fog			0	0		
Norfolk, Va.			29.70	754.4	49	9.4	71	Calm	0	0		Haze	Sm'e			0	0		
North Platte, Neb.			29.55	753.1	34	1.1	89	NE	18	8.0			10n			0.63	16.0	Heavy snow	
Omaha, Neb.			30.09	764.3	38	3.3	71	E	15	6.7			10s			0	0		
Oswego, N. Y.			29.58	753.9	33.5	0.8	89	E					10n			0.15	3.8	Heavy snow	
Peck's Beach			29.67	753.6	47	8.3	62	E	8	3.6		2c	Haze			0	0		
Pembina, D. T.			30.36	771.1	25	— 3.9	74	Calm	0	0		1c	0			0	0		
Philadelphia, Penn.			29.68	753.9	42	5.6	74	E	6	2.7		0	0			0	0		
Pike's Peak, C. T.			29.70	754.4	12	—11.1	100	NW	12	5.4			10n			0.08	2.0	Light snow.	
Pittsburgh, Penn.			29.73	755.1	34	1.1	90	NW	7	3.1			10n		NW	0.05	1.3	Light snow.	
Port Huron, Mich.			29.84	757.9	32	0.0	69	N	28	12.5			10s		N	0.06	1.5	Threatening	
Portland, Maine			29.63	752.6	45	7.2	68	NE	4	1.8		2c	Haze			0	0		
Portland, Or.			30.37	771.4	43	6.1	75	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			29.90	759.4	65.5	18.6	66	NW	22	9.8			10ks		SW	0.16	4.1		
Rochester, N. Y.			29.64	752.8	33	0.6	100	N	6	2.7			10n			0.20	5.1	Heavy snow	
Salt Lake City, Utah			30.04	763.0	42	5.6	65	N	5	2.2		0	0			0	0		
Sandy Hook, N. J.			29.67	753.6	41	5.0	74	E	3	1.3		5c	Haze	SW		0	0		
San Diego, Cal.			29.89	759.2	55	12.8	93	S	4	1.8			10s		S	0	0		
San Francisco, Cal.			29.94	760.5	54	12.2	87	Calm	0	0		0	0			0	0		
Santa Fe, N. M.			29.46	748.3	44	6.7	37	W	8	3.6		2c	1s	SW	NW	0	0		
Savannah, Georgia			29.84	757.9	53	11.7	73	W	6	2.7		0	0			0.41	10.4		
Shreveport, La.			29.94	760.5	50	10.0	86	Calm	0	0		5c	Haze			0	0		
Springfield, Mass.			29.66	753.4	46	7.8	54	Calm	0	0		8cs	Haze			0	0		
St. Louis, Mo.			30.05	763.3	37	2.8	53	N	16	7.2			10s			0	0		
St. Marks, Fla.			29.90	759.4	48	8.9	92	NW	2	0.9		0	0			0	0		
St. Paul, Minn.			30.23	767.8	28	— 2.2	67	N	5	2.2		0	0			0	0		
St. Paul's Island, Alaska			29.89	759.2	22	— 5.6	72	NE	1	0.4		1ck	5k			0	0		
Squan Beach, N. J.			29.68	753.9	42	5.6	75	SE	3	1.3		0	Haze			0	0		
Toledo, Ohio			29.89	759.2	34	1.1	69	NW	12	5.4			10s		NW	0.12	3.0		
Tybee Island, Ga.			29.84	757.9	50	10.0	93	NW	4	1.8		Sm'e	1s			0.45	11.4		
Vicksburg, Miss.			30.02	762.5	52	11.1	79	S	2	0.9		0	0			0	0		
Virginia City, Mon.			29.94	760.5	37	2.8	80	W	12	5.4			10s			0	0		
Washington, D. C.			29.68	753.9	45.5	7.5	74	Calm	0	0		Haze	Sm'e			0	0		
Wilmington, N. C.			29.75	755.6	48	8.9	70	NW	6	2.7		0	Haze			0.65	16.5		
Wood's Hole, Mass.			29.66	753.4	47	8.3	70	N	4	1.8		5c	0	SW		0	0		
Wytheville, Va.			29.53	750.0	39	3.9	63	W	3	1.3		0	0			0	0		
Yankton, D. T.			30.25	768.3	32	0.0	69	E	15	6.7		0	8s		NW	0.02	0.5		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	81	27.2		E	4	1.8		2c	2ks	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.95	760.7	77	25.0		E				2k	1s	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.70	754.4	74	23.3	9)	W	8.6	4.3		10fk	0	NW		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.16	766.1	76	24.4		Calm	0	0		1c	2s	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.20	767.1			77	25.0		SE	8	3.6		2ck	8k	SE		0.01	0.3	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.78	756.4	77	25.0	72	S	10.8	4.8			10n		S	Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.62	752.3	67.5	19.7	90	SW	12.7	5.7			10n			0.100	2.54		C. F. Allen.
Honolulu, Oahu, S. I.			30.15	765.8	62	16.7	78	NE			1	5ks	5k	NE		0.16	4.1	Threatening	E. P. Church.
Makawao, Maui, S. I.			29.94	760.5	58	14.4	88	NE	10.8	4.8		0	0			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me'herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.25	768.3	13.5	−10.3	91	W	9	4.8			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.07	763.8	65	18.3	93	SSE	1.0	0.4		5c	2k	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.39	746.5	43	6.1	74	W				5c	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.03	762.7	72.3	22.4	88	SE			1		10s			0.039	1.00		Leon M. Acuña.
Elyria, Ohio			29.80	756.9	30	−1.1	100	NW	8	3.6			10n			0.35	8.9		H. M. Redington.
Indianola, Iowa	29.26	743.2			35	1.7		E				2c	0	W		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller (Wilmington Harbor)		0	29.77	756.1	53	11.7	93	NW			5		..s					Clear	Capt. James Jorgensen

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below −40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 25, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.03	762.7	67.1	19.5		NW			2		0			0	0		Charnot.
Algiers			30.08	764.0	62.6	17.0	87	W			3		8			0.158	4.0	Rain	Peter.
La Calle			30.04	763.0	62.1	16.7					4		5			0	0		Kuntz.
Tunis			30.00	761.9	67.5	19.7	53	WNW			5		5			0.433	11.0	Rain	Jacques.
Sfax			29.92	760.0	66.4	19.1		W			3		4			0.394	10.0	Rain	Chauvey.
Saida			29.97	761.1	59.2	15.1		SE			2		0			0	0		Grosjean.
Tebessa			30.00	762.1	59.4	15.2		W			5		6			0	0		Colin.
Geriville			30.01	762.2	57.6	14.2		NNW			3		2			0	0		Bernadach.
Laghouat			30.02	762.5	65.3	18.5	34	NW			4		4			0	0		Poinsignon.
Biskra			29.94	760.4	75.6	24.2		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.03	762.8	39.6	4.2	76	NE			2		10			0.090	2.3	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.11	764.8	45.3	7.4	37	NNE			3		0			0	0		I. R. Observatory.
Eperies			29.99	761.7	47.8	8.8	41	N			4		5			0	0		Julius Mikolik.
Gratz			30.00	762.0	50.9	10.5	72	SW			2		5			0	0		Andreas Rospini.
Hermannstadt			29.91	759.6	46.4	8.0	76	ESE			3		10			0.415	10.55	Rain	Prof. Reissenberger.
Kremsmünster			30.08	763.9	46.0	7.8	47	ENE			2		1			0	0		Prof. C. Wagner.
Lemberg			30.04	763.0	43.0	6.1	45	E			2		6			0	0		Dr. T. Stanecki.
Ny'regyhaza			29.98	761.4	53.2	11.8	67	N			4		5			0	0		Habzsida Daniel.
Pola			29.82	757.4	48.0	8.9	51	ENE			7		108			0.140	3.79		I. R. Hydrographic Office
Szegedin			29.91	759.6	48.9	9.4	61	S			2		10			0.173	4.40		Karl Stancel.
Trieste			29.85	758.2	45.5	7.5	58	ENE			5		10			0	0		Prof. V. Farolfi.
Vienna			30.05	763.3	50.9	10.5	24	NNE			2		2			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.06	763.5			50.0	10.0	48	NE			1		0			0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.34	768.1	49.9	9.9		W			3		9			0	0		William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.23	767.8	56.2	13.4		S	12	5.4			0						S. Cali, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.27	768.8	52.8	11.6		WNW			1		1						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.22	767.6	56.6	13.7		SSE			1		7						J. Dreyer, for L'd Rosse.
Bradford																			J. Mc Landsborough.
Bridgetown, (Barbadoes)			30.09	764.3	81.6	27.6		NE			2		2						T. H Hunt.
Bywell																			
Cambridge Observatory			30.26	768.6	56.5	13.6		SW			1		10					Haze	H. Todd.
Cape Town, (Cape Colony)			29.85	758.2	76.0	24.4		SW			3		1						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.88	758.9			82.0	27.8	33	W			9		1						Th Staff, for E. J. Stone.
Cardington			30.30	769.6	58.0	14.4		W					7						John McLaren.
Carlisle			30.28	769.1	51.6	10.9		W					10			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.28	769.1	54.0	12.2		NE			1		0						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.86	758.4	84.5	29.2		SW			4		8						Sgt. W. F. Hopkins
Dartmoor			30.33	770.4	48.5	9.2		E			2		6						R. E. Power.
Donaghadee			30.25	768.3	53	11.7		SE			4		5						J. Mac Gowan, Jr.
Dover			30.30	769.6	47	8.3		NE			2		0						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.24	768 1	57.7	14.3		W	2.2	1.0			5						Thomas Mackereth
Falmouth Observatory			30.30	769.6	49.1	9.5		ESE	20	8.9			6						The Staff.
Fort Napier, (Natal)			30.03	762.7	73.0	22.8		NE			4		4						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			30.15	765.8	56	13.3		S			5		7						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.21	767.3	70.0	21.1		WSW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.23	767.8	52.2	11.2		W			1		6						James Gray.
Great Yarmouth			30.25	768 3	49	9.4		S			3		6						G. T. Watson.
Greenwich Royal Obs.			30.30	769.6	53.9	12.2		NE			1		6						The Staff, for G. B. Airy.
Guernsey			30.28	769.1	50	10.0		NE			2		3						Dr. S. E. Hoskins.
Halifax, Moorside Obs.													6						F. J. Pace, for L. J. Cross-
Halifax, (Nova Scotia)			29.50	749.3	43.0	6.1		Calm			0		10						Corp'l J. Y. Thompson.
Helston			30.25	768.3	55	12.8		SE			5		4						Dr. W. B. Doyle.
Holyhead			30.28	769.1	54	12.2		WSW			2		1						John Tilston.
Hull Park																			
Kew Observatory			30.29	769.4	51.1	10.6		SSW	4	1.8			0					Haze	The Staff.
Kingstown			30.27	768 8	52	11.2		SSE			4		9					Mist	George Mitchell.
Lampeter																			
Leicester Museum			30.26	768.6	54.7	12.6		SW			1		4					Mist	William J. Harrison
Llandudno			30.28	769.1	56.0	13.3		N					0						Dr. James Nicol.
Malta, (Mediterranean)			29.77	756.1	63.6	17.6		NW			1		2k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.22	767.6	51	10.6		W			1		5						William D. Penny.
Nassau, (Bahamas)			30.06	763.5	73.0	22.8		Calm			0		7						Surg.-Maj. J. Jamieson.
North Shields																			John Wm. Irvine.
Nottingham			30.27	768.8	59.7	15.4		SSW			2		6k		SW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30. 5	768.3	55.6	13.1		WSW			2		9					Mist	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.26	768 6	57	13.9		Calm			0		5						J. Lucas, for R. Main.
Plymouth			30.28	769.1	53	11.7		SE			2		1						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.24	768.1	52	11.1		SSE			4		8						W. Kennedy.
Saint Ann's Head																			John C. Walker.
Saint Helier, (Jersey)			30.27	768.8	53.5	11.9		E			4		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.20	767.1	47.4	8.6		W	15	6.7			3						Rev. C. Clouston
Scarborough																			F. Shaw.
Scutari, (Turkey)			29.91	759 7	57.4	14.1		NNW			3		10					Haze	Sergt. W. H. Lyne.
Sheffield			30.21	767.3	60.0	15.6		WNW			1		4			Blank	Blank		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.26	768.6	55.8	13.2		Calm			0		6			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.24	768.1	54.7	12.6		SSE			1		8						Rev. C. J. Steward.
Stonyhurst Observatory			30.24	768.1	53.7	12.1		W			1		4					Haze	The Staff.
Stornoway, Lewis C. (Hebr)			30.18	766.6	52	11.1		SW			2		10					Haze	John Smith.
Strathfield Turgiss			30.23	767.8	56.3	13.5		NW			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.39	771.9	61.4	16.3		N			1		2						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.10	764.5	48	8.9		SW			3		9						William Lawrence.
Taunton College																			
Thurso			30.21	767.3	50	10.0		WNW			1		7						John Trotter.
Truro Royal Institution			30.24	768.1	55	12.8		SE			6		6						W Newcombe.
Valencia Observatory			30.14	765.5	53.7	12.1		SE	37	16.5			1						The Staff.
Wick																			
Wisbeach																			William J. Harris.
Worthing																			
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.95	760.7	46.4	8.0	52	WNW			2		7						
Fanöe			30.09	764.3	46.0	7.8	72	W			6		5						
Godthaab, (Greenland)			29.57	751.0	33.3	0.7		NE			4		2					Mist	
Stykkisholm, (Iceland)			29.83	757.6	50.7	10.4	70	S			4		8						
Thorshavn, (Faröe)			30.10	764.5	48.9	9.4	74	WSW			4		10						
Vestervig			29.98	761.4	46.9	8.3	77	NW			6		7						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.70	754.3	59.4	15.2	98						10nk						Normal School.
Alençon			30.24	768.2	51.8	11.0	34	NE			4		0			0	0		Normal School.
Amiens			30.24	768.2	56.1	13.4	75	NE			3		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.26	768.6	50.9	10.5	35	NE			3		0			0	0		Normal School.
Besançon			30.08	764.1	57.9	14.4	54	E			6		0			0	0		Normal School.
Bourges			30.15	765.8	56.3	13.5	48	N			8		0			0	0		Normal School.
Brest			30.19	766.7	61.7	16.5	50	SW			1		0			0	0		Naval Observatory.
Caen			30.27	768.9	49.1	9.5	61	NE			4		1c		NE	0	0		Normal School.
Carcassonne																			
Chartres			30.24	768.1	54.9	12.7		N			2		0			0	0		Normal School.
Chaumont			30.10	764.5	57.4	14.1		NW			3		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.10	764.6	50.9	10.5	52	NE			4		0			0	0		Normal School.
Orleans																			Normal School.
Paris			30.22	767.5	53.8	12.1		ENE			4		0			0	0		National Observatory.
Parthenay			30.15	765.7	57.2	14.0	56	NE			2		0			0	0		Normal School.
La Roche sur Yon			30.22	767.5	61.5	16.4	37	N			2		0			0	0		Normal School.
Rouen			30.26	768.6	58.3	14.6	33	NNW			4		0			0	0		Normal School.
Saint Lo			30.34	770.5	57.7	14.3	46	E			3		1		E	0	0		Normal School.
Villefranche			30.04	763.1	59.9	11.5	76	NNE			4		0			0	0		Normal School

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.83	630.6			43.7	6.5	56	WSW	14.8	6.66			4		NW	0.240	6.1		—, Falguère.
Montsouris (near Paris)			30.20	767.1	54.1	12.3	27	NE	1.2	0.56			0			0	0		Marié Davy.
Perpignan	29.87	758.7			63.1	17.3	40	WNW	18.6	8.33			4		NW	0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.09	766.9	58.5	14.7	28	NE			1		0			0	0		C. Marquet.
Versailles, (near Paris)			30.21	767.3	55.4	13.0	30	NE			4		0			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.09	764.3	53.6	12.0	58	ENE	13.7	6.1			10ks			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.04	762.9	48.6	9.2	39	NE			2		2			0	0		Prof. Hoh.
Berlin			30.18	766.6	51.3	10.7	38	NW			3		7			0	0		Prof. Arndt.
Breslau			30.17	766.4	45.7	7.6	27	NW			3		0			0	0		Dr. P. Neugebauer.
Carlsruhe			30.13	765.3	53.6	12.0	29	NE			2		0			0	0		A. Sens.
Cassel			30.14	765.5	55.0	12.8	44	NNW			2		4			0	0		Dr. H. Möhl.
Cologne			30.22	767.5	51.8	11.0	52	N			3		0			0	0		Dr. Garthe.
Emden			30.23	767.9	50.0	10.0	65	NW			2		9			0	0		Prof. Prestel.
Frankfort on the Main			30.26	768.7	52.9	11.6	28	NE			3		1			0	0		Physical Society.
Friedrichshafen			30.06	763.5	51.8	11.0	46	NE					6			0	0		M. Wilhelm.
Hamburg			30.20	767.1	46.4	8.0	71	W			4		10			0.004	0.1		W. Reinert.
Kiel			30.15	765.7	48.0	8.9	78	W			4		10			0	0		Prof. G. Karsten.
Königsberg			30.04	762.9	42.6	5.9	40	SW			6		2			0	0		Prof. E. Luther.
Köslin			30.24	768.0	44.6	7.0		W			4		10			0	0		Dr. T gert.
Leipsic			30.19	766.8	46.9	8.3	28	NW			2		1			0	0		Prof. Bruhns.
Münster			30.25	768.3	49.6	9.8	97	NW			1		0			0	0		Prof. E. Heis.
Posen			30.15	765.8	49.8	6.9	30	W			5		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.13	765.2	53.6	12.0	26	NE					0			0	0		Hartwig and Tülk.
Stuttgart			30.09	764.3	53.2	11.8	67	NW					4			0	0		Mr. Würth.
Thorn			30.09	764.2	46.8	8.2	32	W			5		4			0	0		Dr. H enbalg.
Treves, (Trier)			30.13	765.3	52.9	11.6	20	NE			5		0			0	0		Prof. Plesch.
Wustrow			30.08	763.9	44.6	7.0	79	WSW			4		7			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.89	759.1	56.3	13.5	69	NNW	0	0			10	E		0.106	2.7	Rain	
Mondovi			29.82	759.2	51.6	10.9	82	N			2		10			0	0		
Genoa			29.80	756.9	63.0	17.2	47	Calm	0	0			10	N		0.004	0.1	Rain	
Pavia			29.89	759.1	56.8	13.8	65	SE			4		9	NE		0	0		
Verona			29.86	758.4	60.6	15.9	55	E			8		10			0	0		
Padua			29.89	759.3	51.6	10.9	64	ENE	16.8	7.5			10			0	0		
Parma																			
Bologna			29.85	758.1	51.4	10.8	37	ENE			6		10			0	0	Rain	
Livorno			29.78	756.4	53.6	12.0	69	ENE	12.5	5.6			10			0.071	1.8	Rain	
Urbino			29.81	757.1	41.2	5.1	100	NNE			6		10			0	0	Rain	
Ancona			29.78	756.4	50.4	10.2	90	N			4		10			0.047	1.2	Rain	
Siena			29.77	756.1	51.4	10.8	57	E	4.3	1.9			10	E		0.004	0.1	Rain	
Rome			30.71	754.6	65.8	18.8	65	S	6.3	2.8			10	SE		0	0		
Naples, O.U.			30.75	755.7	63.7	17.6	71	SW			2		10	SW		0	0		
Lecce			29.81	757.1	65.1	18.4	70	S	22.4	10.0			6			0	0		
Cosenza			29.65	753.0	63.9	18.3	78	NNW			4		10			0	0		
Catania, (Sicily)			29.78	756.4	61.3	16.3	82	SW			2		10	SW		0.984	25.0	Showery	
Riposto																			
Palermo			29.71	754.7	59.5	15.3	73	WNW			2		10			0.169	4.3	Rain	
Sub-Series.																			
Naples, S. R.	29.22	742.3			58.8	14.9	80	SW			4		..ck		SW	0.646	16.4		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.32	770.0	50.4	10.2		NE			2								
Groningen			30.18	766.5	47.5	8.6		NW			4								
Helder			30.24	768.1	46.8	8.2		SW			4								
Utrecht			30.24	768.0	52.5	11.4	52	WNW			2		8						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.06	763.4	40.3	4.6	56	WNW	24.2	10.8			10			0	0		
Christiania			29.82	757.5	50.9	10.5	25	NW	2.2	1.0			5			0	0		
Tromsö			29.60	751.9	32.0	0.0	71	SE	4.5		2		5			0	0		

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.91	759.7			63.5	17.5	55	WSW	6.3	2.8			4						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.09	764.5	44.1	6.7	54	W	4	2			3						Astronomical Obs.
Wilna			30.04	762.8	37.9	3.3	68	NW	8	3.5			10						Astronomical Obs.
Dorpat			29.87	758.8	37.9	3.3	80	W	7	3			10						Physical Cabinet.
St. Petersburg			29.80	757.1	29.7	— 1.3	55	WNW	11	5			2						Central Physical Obs.
Kieff			30.15	765.8	42.4	5.8	38	W	9	4			3						Physical Cabinet.
Nikolaiev			30.17	766.3	46.2	7.9	42	NE	4	2			8						
Kertch			29.98	761.4	39.7	4.3	89	ENE	17	7.5			10					Rain	Lagorio.
Moscow			29.88	758.9	30.4	— 0.9	84	SW	10	4.5			10					Snow	Meteorological Obs.
Lugan			30.00	761.9	45.1	7.3	34	N	13	6			9						Meteorological Obs.
Archangel			29.58	751.4	27.7	— 2.4	75	NW	13	6			10						Ogorodnikof.
Tiflis			29.96	760.9	76.1	24.5	20	NE	17	7.5			1						Physical Obs.
Astrakhan			29.99	761.8	68.7	20.4	42	WNW	10	4.5			7						Sebastianof.
Kasan			29.66	753.4	26.6	— 3.0	45	W	13	6			3						Physical Cabinet.
Orenburg			29.88	758.9	66.0	18.9	97	SE	10	4.5			10						Tschernischef.
Ekaterinburg			29.65	753.2	54.0	12.2	56	SE	13	6			7						Meteorologica Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.18	766.6	62.1	16.7	41	Calm	0	0			3						Meteorological Obs.
Yeniseisk			30.06	763.4	42.4	5.8	60	E	4	2			0						arks.
Irkutsk																			Usolzef.
Oorga			30.25	768.4	32.7	0.4	65	alm	0	0			5						Mossin.
Peking, (China)			30.10	764.5	54.9	12.7	34	Calm	0	0			8						Physical Observatory
Nertchinsk			30.09	764.3	28.4	— 2.0	30	NNW	8	3.5			0						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.12	765.0	66.2	19.0	47	S	8.9	4.0			4			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.69	754.2	33.8	1.0	81	SW			2		0			0	0		
Hernosand			29.69	754.2	39.2	4.0	64	SW			2		8			0	0		
Stockholm			29.27	743.4	40.5	4.7	53	WNW			2		10			0	0		
Wisby			29.78	756.8	37.8	3.2	90	WNW			2		0			0.11	2.8		
Sub-Series.																			
Upsala			29.70	754.4	41.4	5.2	56	NNW			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.57	725.7			53.2	11.8	48	NNE			4		3			0	0		The Observatory.
Zurich	28.40	721.3			52.0	11.1	48	E			2		7			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +1.3mm.; Thermometer, —1°.5 C.; Relative Humidity, —9 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)																			
Constantinople			29.97	761.2	55.4	13.0	72	NNW	19.0	8.5			10		SW	0	0		
Fao, (Persian Gulf)			30.04	763.0	77.0	25.0		NW			3		0						
Salonica					59.0	15.0		Calm			0		0						
Valona			29.77	756.1	76.3	24.6		S			6		5					Squally	
Varna			30.00	762.0	48.2	9.0		SE			3		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.00	762.0	34	1.1		NW	1	0.4			10s		NW	0	0		
Chatham, N. B.			29.59	751.6	39	3.9	80	Calm	0	0		5k	2s			0.01	0.3		
Charlottetown, P. E. Island			29.55	750.6	38	3.3	77	N	11	4.9			10s			0	0		
Fort Garry, Manitoba			30.23	767.8	35	1.7	84	NE	2	0.9			Fog			0	0		
Halifax, N. S.			29.41	747.0	42	5.6	72	NW	1	0.4			8n			0	0		
Kingston, Ontario			30.04	763.0	35	1.7	90	NW	4	1.8			10s			0	0		
Montreal, Quebec			29.81	757.2	41	5.0		NW	10	4.5		5k	5ks	N		0	0		
Ottawa, Ontario			29.90	759.4	33	0.6	75	NW	14	6.3		10k	0	NW		0	0		
Parry Sound, Ontario			30.10	764.5	33	0.6	70	N	9	4.0		0	2ks		N	0	0		
Port Dover, Ontario			30.10	764.5	35	1.7	70	NW	9	4.0		0	0			0.02	0.5		
Port Stanley, Ontario			30.11	764.8	35	1.7	70	NW	20	8.9		2k	0	N		0	0		
Quebec, Quebec			29.71	754.6	37	2.8	90	SW	6	2.7			8ks		SW	0	0		
Saugeen, Ontario			30.13	765.3	33	0.6	89	NW	3	1.3		2cs	0			0.07	1.8		
Stayner, Ontario																			
Sydney, C. B.			29.53	750.0	35	1.7	88	NE	1	0.4			10n			0	0		
Toronto, Ontario			30.06	763.5	34	1.1	74	NW	21	9.4		5ck	5ks	NW	NW	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.81	757.2	37	2.8	90	W	18	8.0		5k	5s	W	W	0.68	17.3		
Alpena, Mich.			30.17	766.3	32	0.0	79	NW	8	3.6			10ks		NW	0	0		
Atlantic City, N. J.			29.85	758.2	41	5.0	66	NW	23	10.3		1k	0	N		0.10	2.5		
Augusta, Ga.			30.17	766.3	49	9.4	44	NE	4	1.8		0	0			0	0		
Baltimore, Md.			30.00	762.0	43	6.1	50	NW	8	3.6		0	5ks		NW	0.05	1.3		
Barnegat, N. J.			29.81	757.2	40	4.4	71	W	22	9.8		0	Haze			0	0		
Benton, Montana			30.23	767.8	40	4.4	82	Calm	0	0		0	0			0.37	9.4		
Bismarck, Dakota			30.17	766.3	32	0.0	89	E	3	1.3			10n		E	0.01	0.3	Light rain	
Boston, Mass.			29.63	752.6	44	6.7	75	N	8	3.6			10s		N	0	0		
Breckenridge, Minn.			30.30	769.6	33	0.6	79	Calm	0	0		5k	0	NW		0	0		
Buffalo, N. Y.			30.07	763.8	32	0.0	79	W	4	1.8			10ks		W	0.23	5.8		
Burlington, Vt.			29.83	757.7	40	4.4	73	N	3	1.3			10s			0	0		
Cairo, Ill.			30.22	767.6	44	6.7	51	E	8	3.6			10s		N	0	0		
Cape Hatteras, N. C.			30.06	763.5	46	7.8	54	NW	19	8.5		0	0			0	0		
Cape Henry, Va.			30.04	763.0	49	9.4	50	NW	28	12.5		2k	0	NW		0	0		
Cape May, N. J.			29.92	760.0	41	5.0	65	NW	28	12.5		2k	0	NW		0.12	3.0		
Charleston, S. C.			30.18	766.6	49	9.4	42	N	16	7.2		0	0			0	0		
Cheyenne, W. T.			30.05	763.3	31	— 0.6	89	N	16	7.2			10n			0.24	6.1		
Chicago, Ill.			30.25	768.3	37	2.8	71	NE	5	2.2		0	0			0	0		
Cincinnati, Ohio			30.25	768.3	38	3.3	71	N	1	0.4		Haze	Haze			0	0		
Cleveland, Ohio			30.16	766.1	37.5	3.1	71	NW	8	3.6		0	0			0	0		
Colorado Springs, Col.			30.03	762.7	32	0.0	80	N	12	5.4			10s		S	0.02	0.5		
Corsicana, Texas			29.92	760.0	60	15.6	76	E	7	3.1			10s			0	0		
Davenport, Iowa			30.26	768.6	38	3.3	66	SW	8	3.6		8c	0	W		0	0		
Denver, Col.			30.16	766.1	31	— 0.6	79	Calm	0	0			10n			0.67	17.0	Light snow	
Detroit, Mich.			30.18	766.6	34	1.1	69	NW	9	4.0		0	0			0	0		
Dodge City, Kansas			29.86	758.4	31	— 0.6	89	N	23	10.3			10n			0.04	1.0	Light rain	
Dubuque, Iowa			30.26	768.6	35	1.7	61	Calm	0	0		8c	0	NE		0	0		
Duluth, Minn.			30.24	768.1	31	— 0.6	78	Calm	0	0		8cs	0	W		0	0		
Eastport, Me.			29.58	751.3	43	6.1	66	N	5	2.2			10s		N	0	0		
Erie, Penn.			30.10	764.5	36	2.2	80	W	12	5.4			10k			0.15	3.8		
Escanaba, Mich.			30.20	767.1	34	1.1	52	Calm	0	0		5k	0			0	0		
Fort Gibson, I. T.			29.98	761.5	49	9.4	50	E	16	7.2		10ks	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.15	765.8	34	1.1	79	Calm	0	0			10s		SE	0	0		
Galveston, Texas			29.95	760.7	67	19.4	84	SE	8	3.6		0	5ks		N	0	0		
Grand Haven, Mich.			30.26	768.6	35	1.7	70	N	8	3.6		2c	0			0	0		
Indianapolis, Ind.			30.25	768.3	37	2.8	62	NW	2	0.9		5cs	0			0	0		
Indianola, Texas			29.89	759.2	68	20.0	90	E	8	3.6			10s		S	0	0		
Jacksonville, Fla.			30.08	764.0	61	16.1	70	NW	8	3.6		0	0			0	0		
Keokuk, Iowa			30.22	767.6	41	5.0	64	SE	2	0.9		5c	2s	SW		0	0		
Key West, Fla.			30.07	763.8	69.2	20.7	66	NE	9	4.0		5k	Haze	W		0	0		
Kittyhawk, N. C.			30.06	763.5	45	7.2	46	NW	18	8.0		0	0			0.05	0.3		
Knoxville, Tenn.			30.23	767.8	39	3.9	55	NE	12	5.4		10cs	0			0	0		
La Crosse, Wis.			30.25	768.3	36	2.2	61	N	2	0.9		0	0			0	0		
Leavenworth, Kan.			30.29	767.1	43	6.1	67	SE	6	2.7			10n		SE	0.04	1.0		
Lexington, Ky.			30.25	768.3	44	6.7	60	S	7	3.1		8c	0			0	0		
Long Branch, N. J.			29.81	757.2	41	5.0	73	NW	35	15.6		0	Haze			0.93	23.6		
Louisville, Ky.			30.25	768.3	38	3.3	50	Calm	0	0		5c	0			0	0		
Lynchburg, Va.			30.12	765.0	47	8.3	32	W	8	3.6		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			30.21	767.3	33	0.6	70	Calm	0	0		5cs	0			0	0		
Memphis, Tenn.			30.17	766.3	48	8.9	49	NE	5	2.2		1cs	2s			0	0		
Milwaukee, Wisconsin			30.29	769.4	34	1.1	79	N	2	0.9		0	Fog			0	0		
Mobile, Ala.			30.10	764.5	54	12.2	86	N	5	2.2		2k	0			0	0		
Montgomery, Ala.			30.15	765.8	54.5	12.5	47	NE	4	1.8		2c	Haze			0	0		
Morgantown, W. Virginia			30.15	765.8	42	5.6	57	NW	6	2.7		0	0			0.02	0.5		
Mt. Washington, N. H.			29.76	755.9	23	— 5.0	100	NE	4	1.8			10n		NE	0.05	1.3	Light snow	
Nashville, Tenn.			30.21	767.3	44	6.7	52	NE	2	0.9		0	10s			0	0		
New Haven, Conn.			29.74	755.4	42	5.6	65	N	18	8.0		5k	2ks	NW		0.10	2.5		
New London, Conn.			29.67	753.6	44	6.7	72	N	13	5.8		0	8ks		NE	0.03	0.8		
New Orleans, La.			30.01	762.2	60	15.6	65	SE	12	5.4		1c	0	NE		0	0		
Newport, R. I.																			
New York, N. Y.			29.83	757.7	37	2.8	80	NW	22	9.8		5k	0	W		0.50	12.7		
Norfolk, Va.			30.06	763.5	45	7.2	46	NW	18	8.0		0	0			0	0		
North Platte, Neb.			29.97	761.2	31	— 0.6	89	Calm	0	0			10s			0.76	19.3		
Omaha, Neb.			30.23	767.8	41	5.0	48	Calm	0	0		10cs	0	SW		0	0		
Oswego, N. Y.			30.04	762.2	34.8	1.6	80	NW	8	3.6			10s			0.19	4.8		
Peck's Beach			29.89	759.2	43	6.1	58	NW	30	13.4		4k	2s	NW		0.08	2.0		
Pembina, D. T.			30.21	767.3	36	2.2	80	NW	4	1.8		8c	2s	NW		0	0		
Philadelphia, Penn.			29.90	759.4	42	5.6	50	N	36	15.2		2k	0	N		0.28	7.1		
Pike's Peak, C. T.			29.81	757.2	— 6	—21.1	100	NW	8	3.6			10s			0.02	0.5		
Pittsburgh, Penn.			30.13	765.3	37	2.8	53	NW	6	2.7		0	0			0	0		
Port Huron, Mich.			30.18	766.6	33	0.6	79	NW	10	4.5		0	0			0	0		
Portland, Maine			29.64	752.8	45	7.2	68	N	6	2.7		10ks	0			0	0		
Portland, Or.			29.99	761.7	52	11.1	79	N	6	2.7		Haze	Haze			0	0		
Punta Rassa, Fla.			30.11	764.8	62.8	17.1	61	NE	8	3.6		5cs	Sm'e	SW		0	0		
Rochester, N. Y.			30.02	762.5	36	2.2	70	W	12	5.4		2k	5s	NW		0.20	5.1		
Salt Lake City, Utah			30.09	764.3	42	5.6	49	NE	1	0.4		0	0			0	0		
Sandy Hook, N. J.			29.81	757.2	39	3.9	81	NW	30	13.4		0	5ks			0.76	19.3		
San Diego, Cal.			29.94	760.5	54	12.2	93	N	8	3.6			10s		N	0	0		
San Francisco, Cal.			29.84	757.9	57	13.9	75	Calm	0	0		Haze	Sm'e			0	0		
Santa Fe, N. M.			29.70	754.4	30	— 1.1	68	W	1	0.4			10n		SW	0.13	3.3	Heavy snow	
Savannah, Georgia			30.16	766.1	54	12.2	43	N	10	4.5		0	0			0	0		
Shreveport, La.			30.04	763.0	57	13.9	69	ENE	5	2.2		2c	5s	SW		0	0		
Springfield, Mass.			29.72	754.9	47	8.3	54	NW	12	5.4		8k	Haze	NE		0	0		
St. Louis, Mo.			30.25	768.3	40	4.4	47	E	4	1.8		5c	0			0	0		
St. Marks, Fla.			30.08	764.0	54	12.2	86	N	2	0.9		0	0			0	0		
St. Paul, Minn.			30.20	767.1	36	2.2	53	W	3	1.3		8c	0			0	0		
St. Paul's Island, Alaska			29.84	757.9	26	— 3.3	75	WNW	3	1.3		1ck	5k	WNW		0.01	0.3		
Squan Beach, N. J.			29.82	757.4	38	3.3	80	NW	20	8.9		0	5s			0.20	5.1		
Toledo, Ohio			30.26	768.6	39	3.9	63	N	8	3.6		0	0			0	0		
Tybee Island, Ga.			30.18	766.6	52	11.1	59	NE	24	10.7		0	Sm'e			0	0		
Vicksburg, Miss.			30.10	764.5	57	13.9	57	SE	10	4.5			10s		SE	0	0		
Virginia City, Mon.			29.93	760.2	33	0.6	69	Calm	0	0		0	0			0	0		
Washington, D. C.			30.04	763.0	42	5.6	56	NW	17	7.6		5k	0	NW		0.06	1.5		
Wilmington, N. C.			30.15	765.8	45	7.2	37	N	10	4.5		0	0			0	0		
Wood's Hole, Mass.			29.64	760.5	43	6.1	75	N	15	6.7			10s			0	0		
Wytheville, Va.			30.00	762.0	36	2.2	53	NW	5	2.2		0	0			0	0		
Yankton, D. T.			30.31	769.9	38	3.3	72	N	1	0.4		8c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.03	762.7	82	27.8		E	4	1.8		5c	5ks	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			29.99	761.7	78	25.6		E				2k	2s	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.82	757.4	73	22.8	63	SE	4.8	2.2		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.23	767.8	78	25.6		Calm	0	0		1c	0	SE		0	0		James Gall.
St. Thomas, St. T., W. I.	30.27	768.8			76	24.4		E	6	2.7		2ck	2k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.84	757.9	78	25.6	78	NE	3.6	1.6		10ck	5ks	SW		Blank	Blank		Robert Mason.
St. Georges, Bermudas			29.80	756.9	67	19.4	79	W	14	6.3		0	0			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.13	765.3	72	22.2	73	NE	2	0.9		5c	5k	NE		0	0		E. P. Church.
Makawao, Maui, S. I.			29.97	761.2	60	15.6	88	NE	6	2.7		0	3ks		NE	0.14	3.5	Rainy	F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.34	770.6	— 1.0	—18.3	100	N	8	3.6		4c	3s	N		0.10	2.5		J. Fortescue.
Clifton, Jamaica, W. I.			30.05	763.3	65	18.3	93	SSE	2.0	0.9		2c	2k	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.73	755.1	42.5	5.8	95	NE				0	0			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.07	763.6	79.5	26.4	68	SE			2	1ck	0			0	0		Leon M. Acuña.
Elyria, Ohio			30.18	766.6	36	2.2	70	NW	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.31	744.5			49	9.4		NE				2c	1s	SW		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 32° 57′, W. 75° 51′	E	5	29.98	761.5	61	16.1	88	N			7	c.				Rough		Clear	Capt. James Jorgensen

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 26, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.13	765.4	70.9	21.6		SE			2		0			0	0		Charnot.
Algiers			30.12	765.1	64.8	18.2	69	WNW			2		0			0	0		Peter.
La Calle			30.14	765.6	65.3	18.5		N			5		9			0	0		Kuntz.
Tunis			30.15	765.9	68.5	20.3	39	NW			5		3			0	0		Jacques.
Sfax			30.13	765.4	71.8	22.1		N			5		2			0	0		Chauvey.
Saida			30.09	764.2	70.0	21.1		WNW			1		0			0	0		Grosjean.
Tebessa			30.16	766.0	59.9	15.5		NNW			5		6			0	0		Colin.
Geriville			30.13	765.2	64.2	17.9		N			1		2			0	0		Bernadach.
Laghouat			30.13	765.2	71.6	22.0	22	SW			2		1			0	0		Poinsignon.
Biskra			30.12	765.1	79.7	26.5		NW			3		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			29.77	761.3	54.3	12.4	30	Calm			0		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.02	762.6	50.0	10.0	51	NE			2		10			0	0		I. R. Observatory.
Eperies			29.93	760.1	52.0	11.1	40	N			4		1			0	0		Julius Mikolik.
Gratz			29.97	761.1	55.6	13.1	52	NW			5		2			0	0		Andreas Rospini.
Hermannstadt			29.87	758.8	43.0	6.0	87	ESE			1		10			0.465	11.80	Rain	Prof. Reissenberger.
Kremsmünster			30.07	763.7	50.4	10.2	38	NW			2		2			0	0		Prof. C. Wagner.
Lemberg			29.96	761.0	50.4	10.2	42	S			2		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.92	759.9	56.1	13.4	34	N			3		0			0	0		Habzsuda Daniel.
Pola			29.89	759.3	54.5	12.5	35	E			4		8c8			0	0		I. R. Hydrographic Office
Szegedin			29.88	758.9	55.0	12.8	40	NE			3		8			0	0		Karl Stancel.
Trieste			29.93	760.1	59.5	15.3	30	ENE			2		1			0	0		Prof. V. Farolfi.
Vienna			30.05	763.3	50.0	10.0	32	N			2		7			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	30.01	762.2			54.3	12.4	46	NNE			1		4k		NE	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.08	764.0	50.5	10.3		SSE	16	7.2			0			0	0		William Boswell.
Annanhill																			
Ardrossan			30.02	762.5	54	12.2		SSW			2		8					Mist	William McNeil.
Armagh Observatory			29.97	761.2	47.8	8.8		SE	18	8.0			10					Rain	S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.06	763.5	56.3	13.5		SSE			3		9						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.91	759.7	52.9	11.6		SSE			1-3		10					Rain	J. Dreyer, for L'd Rosse.
Bradford			30.04	763.0	58.0	14.4		SE			1		0						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.10	764.5	81.4	27.4		NE			3		6						T. H Hunt.
Bywell																			
Cambridge Observatory			30.16	766.1	59.0	15.0		SSW			1		2						H. Todd.
Cape Town, (Cape Colony)			29.98	761.5	64.2	17.9		W			4		8						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.00	762.0			69.2	20.7	51	S	5	2.2			9						Th Staff, for E. J. Stone.
Cardington			30.17	766.3	60.0	15.6		S					8						John McLaren.
Carlisle			30.05	763.3	58.0	14.4		W					10			0	0		T Bell, for J. Cartmell.
Chatham, School M. E.			30.18	766.6	56.6	13.1		S			2		9					Haze	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759 2	84.0	29.8		SW			5		6						Sgt. W. F. Hopkins
Dartmoor			30.18	766.6	49.0	9.4		SE			4		8						R. E. Power.
Donaghadee			30.01	762.2	45	7.2		SE			5		10						J. Mac Gowan, Jr.
Dover			30.20	767.1	52	11.1		SSW			1		4						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.08	764.0	56.7	13.7		SE	5.4	2.4			0					Haze	Thomas Mackereth.
Falmouth Observatory			30.08	764.0	52.7	11.5		SSE	16	7.2			10					Fog	The Staff.
Fort Napier, (Natal)			29.86	758.4	80.0	26.7		NE			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			29.83	757.7	57	13.9		SW			3		10						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.11	764.8	70.5	21.4		SW			4		0						Sergt. E. G. Baker.
Glasgow Observatory			30.01	762.2	57.2	14.0		SSW			2		8					Mist	James Gray.
Great Yarmouth			30.19	766.8	49	9.4		SE			3		8						G. T. Watson.
Greenwich Royal Obs.			30.19	766.8	59.5	15.3		SSE			1		9					Mist	Th Staff, for G. B. Airy.
Guernsey			30.08	764.0	54.5	12.5		SSW			1		8					Mist	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.01	762.2	58.8	14.9		S					5						F. J. Pore, for L. J. Cross-
Halifax, (Nova Scotia)			29.73	755.1	46	7.8		NW			3		3						Corp'l J. T. Thompson.
Helston			30.04	763.0	56	13.3		S			6		10					Mist	Dr. W. B. Neyle.
Holyhead			30.05	763.3	51	10.6		SSW			3		10					Rain	John Tilston.
Hull Park																			
Kew Observatory			30.18	766.6	54.5	12.5		S	15	6.7								Mist	The Staff.
Kingstown			30.01	762.2	48	8.9		SSE			4		10					Rain	George Mitchell.
Lampeter																			
Leicester Museum			30.15	765.8	55.6	13.1		S			2		2					Haze	William J. Harrison
Llandudno			30.06	763.5	50.5	10.3		NE					10						Dr. James Nicol.
Malta, (Mediterranean)			29.86	758.4	63.4	17.4		NW			3		8k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.99	761.7	57	13.9		Calm			0		5						William D. Penny.
Nassau, (Bahamas)			30.22	767.6	75.9	24.4		E			2		6						Surg.-Maj. J. Jameson.
North Shields			30.09	764.3	51	10.6		SSE			3		2						John Wm. Irvine.
Nottingham			30.13	765.3	59.0	15.0		SSW			2	3c		W					E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.10	764.5	56.1	13.4		S			5		10						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.12	765.0	58	14.4		S			2		8						J. Lucas, for R. Main.
Plymouth			30.10	764.5	56	13.3		SE			2		8						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			29.94	760.5	52	11.1		S			4		10					Rain	W. Kennedy.
Saint Ann's Head			30.04	763.0	50	10.0		SE			3		10						John C. Walker.
Saint Helier, (Jersey)			30.15	765.8	58.2	14.6		SSE			3		2						A. P. Amy.
Sandwick Manse (Orkneys)			30.03	762.7	51.5	10.8		SSE	25	11.2			0						Rev. C. Clouston
Scarborough			30.13	765.3	47.3	8.5		SE			4		8						F. Shaw.
Scutari, (Turkey)			29.81	757.2	57.8	14.3					1		10					Mist	Sergt. W. H. Lyne.
Sheffield			30.10	764.5	58.7	14.8		SW			4		4			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.04	763.0	59.8	15.4		SE			3		8			0.180	4.6		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.18	766.6	54.0	12.2		SSW			1		6						Rev. C. J. Steward.
Stonyhurst Observatory			30.07	763.3	54.2	12.3		S			4		5					Haze	The Staff.
Stornoway, Lews C. (Hebr.)			29.94	760.5	54	12.2		SSE			3		1						John Smith.
Strathfield Turgiss			30.18	766.6	56.3	13.5		SW			1-2		3						Rev Charles H. Griffith
Streatley Vicarage			30.17	766.3	59.7	15.4		SSE			5		8						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.02	762.5	48	8.9		SW			3		8						William Lawrence.
Taunton College																			
Thurso			30.02	762.5	57	13.9		SSE			3		4						John Trotter.
Truro Royal Institution			30.02	762.5	55	12.8		S			5		10						W Newcombe.
Valencia Observatory			29.90	759.4	54.1	12.3		SW	11	4.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.19	766.8	51.4	10.8		SE			2		7						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.02	762.4	50.0	10.0	46	W			2		4						
Fanöe			30.10	764.6	47.3	8.5	61	NNW			4		1						
Godthaab, (Greenland)			29.54	750.2	31.8	— 0.1		ENE			4		10						
Stykkisholm, (Iceland)			29.68	753.8	47.8	8.8	78	SE			2		8						
Thorshavn, (Faröe)			29.94	760.4	52.3	11.3	71	SSW			2		4						
Vestervig			30.05	763.3	47.1	8.4	73	NW			6		3						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.78	756.5	60.6	15.9	73						2ck						Normal School.
Alengon			30.15	765.8	62.6	17.0	38	S			1		2			0	0		Normal School.
Amiens			30.24	768.0	59.4	15.2	80	WSW			4		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.20	767.0	59.5	15.3	29	SSE			1		8			0	0		Normal School.
Besançon			30.13	765.3	59.0	15.0	35	NE			6		0			0	0		Normal School.
Bourges			30.17	766.2	59.5	15.2	51	NE			1		2		N	0	0		Normal School.
Brest			30.04	763.0	59.9	15.5	61	SW			3		5		WSW	0	0		Naval Observatory.
Caen			30.16	766.0	58.1	14.5	41	SE			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.16	766.0	61.0	16.1		ESE			1		5		SE	0	0		Normal School.
Chaumont			30.11	764.8	58.6	14.8		NE			4		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.11	764.8	53.2	11.8	36	ENE			2		2			0	0		Normal School.
Orleans																			Normal School.
Paris Observatory			30.17	766.4	60.4	15.8		SSE			1		8cs			0	0		National Observatory.
Parthenay			30.14	765.5	60.8	16.0	32	SE			2		*0			0	0		Normal School.
La Roche sur Yon			30.22	767.5	52.5	11.4	34	E			1		2		N	0	0		Normal School.
Rouen			30.17	766.4	61.0	16.1	35	SE			2		0			0	0		Normal School.
Saint Lo			30.18	766.5	61.2	16.2	35	S			2		1		E	0	0		Normal School.
Villefranche			30.02	762.4	64.2	17.9	65	N			6		2		S	0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.87	631.6			47.3	8.5	35	NNE	20.5	9.17			0			0	0		—. Falguères.
Montsouris Observatory			30.17	766.3	60.6	15.9	23	SW	1.2	0.56			8c		NW	0	0		Marié Davy.
Perpignan	29.89	759.2			65.8	18.8	18	NW	20.5	9.17			0			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pier e, (Martinique)																			
Tours			30.15	765.7	61.0	16.1	29	NE			1		1		N	0	0		C. Marquet.
Versailles, (near Paris			30.19	766.8	60.1	15.6	45	SE			1		3			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.01	762.2	44.6	7.0	91	NNE	14.1	6.3			10kn			0	0	Light rain	H. Le Lee, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.08	763.9	48.2	9.0	55	NW			4		6			0	0		Prof. Hoh.
Berlin			30.16	766.0	50.0	10.0	50	NW			3		8			0	0		Prof. Arndt.
Breslau			30.13	765.3	43.9	6.6	54	NW			4		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.15	765.9	54.3	12.4	39	SE			1		0			0	0		A. Senz.
Cassel			30.13	765.2	53.4	11.9	52	N			2		3			0	0		Dr. H. Möhl.
Cologne			30.21	767.4	51.3	10.7	57	NW			4		2			0	0		Dr. Garthe.
Emden			30.28	769.0	47.1	8.4	63	NNW			3		0			0	0		Prof. Prestel.
Frankfort on the Main			30.24	768.2	58.3	14.6	34	NE			1		3			0	0		Physical Society.
Friedrichshafen			30.12	765.0	52.7	11.5	36	NE					0			0	0		M. Wilhelm.
Hamburg			30.17	766.4	48.7	9.3	53	W			4		7			0	0		W. Reinert.
Kiel			30.12	765.1	52.0	11.1	48	NW			1		2			0	0		Prof. G. Karsten.
Königsberg			29.95	760.6	43.2	6.2	39	NW			2		2			0.004	0.1		Prof. E. Luther.
Köslin			30.25	768.4	41.7	5.4		NW			3		8			0	0		Dr. T gert.
Leipsic			30.15	765.7	50.0	10.0	43	NW			4		6			0	0		Prof. Bruhns.
Münster			30.17	766.4	53.4	11.9	78	W			1		0			0	0		Prof. E. Heis.
Posen			30.08	764.1	44.8	7.1	58	NW			2		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.15	765.7	55.4	13.0	28	NE					0			0	0		Hartwig and Tülk.
Stuttgart			30.14	765.6	54.3	12.4	40	N					0			0	0		Mr. Würth.
Thorn			29.99	761.7	46.6	8.1	76	NW			2		7			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.11	764.9	57.2	14.0	35	E			3		0			0	0		Prof. Flesch.
Wustrow			30.11	764.7	44.4	6.9	82	NW			3		0			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			29.95	760.7	60.6	15.9	53	SE	2.5	1.1			1	E		0	0		
Mondovi			29.93	760.2	55.9	13.3	48	NW			2		*0			0	0		
Genoa			29.90	759.4	65.3	18.5	33	NW	4.3	1.9			0			0	0		
Pavia			29.95	760.6	59.7	15.4	42	NE			4		0			0	0		
Verona			29.91	759.6	63.5	17.5	43	E			1		0	E		0	0		
Padua			29.92	759.9	58.5	14.7	38	SE	3.8	1.7			5			0	0		
Parma																			
Bologna			29.96	760.9	56.8	13.8	30	NE			6		2	E		0	0		
Livorno			29.89	759.1	59.7	15.4	42	W	22.4	10.0			4			0	0		
Urbino			29.92	760.0	46.9	8.3	56	NE			4		6			0	0		
Ancona			29.89	759.2	55.0	12.8	73	NNW			4		7			0	0		
Siena			29.81	758.0	54.9	12.7	41	ENE	13.7	6.1			4	E		0	0		
Rome			29.77	756.1	58.3	14.6	48	N	13.0	5.8			10	W		0	0		
Naples, O.U.			29.75	755.6	60.6	15.9	55	ENE			2		9	NE		0	0		
Lecce			29.64	752.9	57.2	14.0	70	WNW	0	0			9			0	0		
Cosenza			29.70	754.3	60.4	15.8	61	NNW			1		10			0.008	2.0	Rain	
Catania, (Sicily)			29.77	756.2	64.8	18.2	45	W			4		2	NW		0	0		
Riposto																			
Palermo			29.77	756.2	59.4	15.2	59	WNW			8		10	WNW		0.004	0.1		
SUB-SERIES.																			
Naples, S. R.	29.22	742.2			55.4	13.0	68	NE			2-4		ks		NW	0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.25	768.3	51.1	10.6		WNW			2								
Groningen			30.15	765.9	48.7	9.3		NNW			3								
Helder			30.22	767.5	48.0	8.9		NE			2								
Utrecht			30.18	766.5	53.1	11.7	46	NNW			2		2						

NOTE.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			30.05	763.3	47.3	8.5	73	W	10.3	4.6			8			0	0		
Christiania			29.95	760.8	45.0	7.2	47	ENE	8.1	3.6			8			0	0		
Tromsö			29.70	754.3	32.5	0.3	79	Calm			0		10			0	0	Snow	

NOTE.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.87	758.7			61.7	16.5	81	SW	16.1	7.2			8						

NOTE.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.97	761.1	45.1	7.3	68	W	4	2			10						Astronomical Obs.
Wilna			29.85	758.3	36.5	2.5	87	NW	8	3.5			10					Rain	Astronomical Obs.
Dorpat			29.85	758.3	35.8	2.1	77	ENE	7	3			9					Hail	Physical Cabinet.
St. Petersburg			29.71	754.7	36.0	2.2	49	E	4	2			6						Central Physical Obs.
Kieff			29.99	761.8	50.0	10.0	45	WSW	9	4			6						Physical Cabinet.
Nikolaiev			30.02	762.5	49.1	9.5	55	SE	4	2			8						
Kertch			29.98	761.4	46.4	8.1	85	E	11	5			10						Lagorio.
Moscow			29.83	757.6	34.2	1.2	87	SW	13	6			10					Snow	Meteorological Obs.
Lugan			29.98	761.4	52.0	11.1	31	E	13	6			5						Meteorological Obs.
Archangel			29.69	754.2	32.4	0.2	85	WNW	4	2			9						Ogorodnikof.
Tiflis			29.94	760.5	69.4	20.8	42	N	13	6			9						Physical Obs.
Astrakhan			30.22	767.6	46.4	8.0	75	ENE	13	6			10						Sebastianof.
Kasan			29.95	760.5	38.8	3.8	48	W	10	4.5			4						Physical Cabinet.
Orenburg			30.17	766.4	44.1	6.7	47	W	8	3.5			3						Tschernischef.
Ekaterinburg			29.88	758.9	32.0	0.5	90	SW	20	9			10						Meteorologica Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			29.87	758.6	68.4	20.2	28	E	4	2			1						Meteorological Obs.
Yeniseisk			30.13	765.2	42.3	5.7	55	N	8	3.5			0						arks.
Irkutsk																			Usolzef.
Oorga																			Mossin.
Peking, (China)			29.94	760.4	54.1	12.3	32	Calm	0	0			8						Physical Observatory
Nertchinsk			29.91	759.8	32.2	0.1	31	Calm	0	0			10						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurd kof.
Kuopio																			

NOTE.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.08	764.0	70.7	21.5	41	SW	7.4	3.3		2	1	W		0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

NOTE.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.80	756.8	38.5	3.6	73	S			2		8			0	0		
Hernosand			29.77	756.2	41.0	5.0	26	N			3		8			0	0		
Stockholm			29.80	756.9	41.0	5.0	44	N			3		6			0	0		
Wisby			29.91	759.7	39.2	4.0	67	W			3		0			0	0		
Sub-Series.																			
Upsala			29.84	757.8	43.2	6.2	44	WNW			4		2	NNW	NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.63	727.2			54.0	12.2	37	NNE			4		0			0	0		The Observatory.
Zurich	28.45	722.5			55.2	12.9	34	E			2		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +2.8mm.; Thermometer, —1°.3 C.; Relative Humidity, —20 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.93	760.1	68.2	20.1	85	NNE			2		10						
Constantinople			29.84	758.0	57.0	13.9	80	NNW	2	1			10		WSW	0	0		
Fao, (Persian Gulf)			29.96	760.9	82.8	28.5		NW			3		10						
Salonica					64.2	17.9		NW			1		5						
Valona			29.63	752.6	55.8	13.2		SW			1		10						
Varna			29.96	761.0	48.2	9.0		NE			4		10					Rain	

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.20	767.1	37	2.8		Calm	0	0			10s		W	0	0		
Chatham, N. B.			29.75	755.6	41	5.0	65	NW	12	5.4		10k	0	NW		0	0		
Charlottetown, P. E. Island			29.69	754.1	41	5.0	72	NW	11	4.9		0	0			0	0		
Fort Garry, Manitoba			30.13	765.3	38	3.3	90	SW	2	0.9		5k	5ks	SW	SW	0	0		
Halifax, N. S.			29.62	752.3	46	7.8	69	NW	15	6.7		0	2ks		N	0	0		
Kingston, Ontario			30.18	766.6	40	4.4	64	NE	2	0.9		10c	0			0	0		
Montreal, Quebec			30.10	764.5	36	2.2	56	NW	15	6.7		Haze	Haze			0	0		
Ottawa, Ontario			30.16	766.1	38	3.3	63	NW	3	1.3		2k	5n	W	W	0	0		
Parry Sound, Ontario			30.16	766.1	34	1.1	84	W	9	4.0		2ck	5ks	W		0	0		
Port Dover, Ontario			30.19	766.8	38	3.3	72	S	4	1.8		10ck	0	SW		0	0		
Port Stanley, Ontario			30.20	767.1	35	0.6	74	E	1	0.4		5ck	0	W		0	0		
Quebec, Quebec			30.00	762.0	34	1.1	80	[illegible]	8	3.6		0	0			0	0		
Saugeen, Ontario			30.19	766.8	37	2.8	86	SW	3	1.3		5cs	0	S		0	0		
Stayner, Ontario			30.15	765.8	40	4.4	43	N	5	2.2		0	0			0	0		
Sydney, C. B.			29.60	751.8	38	3.3	67	N	7	3.1		8cs	0			0.27	6.9		
Toronto, Ontario			30.19	766.8	39	3.9	70	W	5	2.2		2ck	2s	W	N	0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.11	764.8	42	5.6	66	W	2	0.9		5k	5s	W	W	0	0		
Alpena, Mich.			30.19	766.8	36	2.2	53	N	4	1.8		5cs	Haze	SE		0	0		
Atlantic City, N. J.			30.23	767.8	46	7.8	76	SW	3	1.3		0	Haze			0	0		
Augusta, Ga.			30.25	768.3	55	12.8	74	Calm	0	0		2cs	0	W		0	0		
Baltimore, Md.			30.24	768.1	51	10.6	52	W	4	1.8		5ck	Sm'e	W		0	0		
Barnegat, N. J.			30.21	767.3	51	10.6	71	SW	3	1.3		2cs	0			0	0		
Benton, Montana			29.83	757.7	42	5.6	83	Calm	0	0			10s			0	0		
Bismarck, Dakota			30.00	762.0	39	3.9	63	S	4	1.8		5c	0	S		0.13	3.3		
Boston, Mass.			30.05	763.3	45	7.2	60	NW	11	4.9		2c	5s	N		0	0		
Breckenridge, Minn.			30.18	766.6	38	3.3	80	NE	2	0.9		0	0			0	0		
Buffalo, N. Y.			30.20	767.1	34	1.1	79	SW	4	1.8			10s		SW	0	0		
Burlington, Vt.			30.10	764.5	40	4.4	82	NW	5	2.2			10s			0	0		
Cairo, Ill.			30.07	763.8	51	10.6	86	Calm	0	0			10n			0.11	2.8	Light rain	
Cape Hatteras, N. C.			30.29	769.4	57	13.9	74	SW	8	3.6		2ck	0	W		0	0		
Cape Henry, Va.			30.25	768.3	65	18.3	49	SW	6	2.7		2c	0			0	0		
Cape May, N. J.			30.24	768.1	47	8.3	70	W	6	2.7		2cs	0	W		0	0		
Charleston, S. C.			30.26	768.6	60	15.6	70	E	4	1.8		5ck	Sm'e	E		0	0		
Cheyenne, W. T.			30.00	762.0	29	—1.7	89	NW	4	1.8		0	0			0	0		
Chicago, Ill.			30.17	766.3	42	5.6	58	SE	2	0.9			10s			0	0		
Cincinnati, Ohio			30.17	766.3	51	10.6	52	NE	2	0.9			10s			0	0		
Cleveland, Ohio			30.17	766.3	41.5	5.3	61	SE	4	1.8		2ck	Sm'e	W		0	0		
Colorado Springs, Col.			30.00	762.0	35	1.7	54	N	4	1.8		2c	0	NW		0	0		
Corsicana, Texas			30.11	764.8	45	7.2	84	NW	6	2.7		5cs	0	W		0.55	14.0		
Davenport, Iowa			30.11	765.5	49	9.4	64	NE	4	1.8			10s		E	0	0		
Denver, Col.			30.08	764.0	34	1.1	71	S	4	1.8		1c	0	N		0.04	1.0		
Detroit, Mich.			30.17	766.3	40	4.4	64	N	2	0.9		8cs	Sm'e	W		0	0		
Dodge City, Kansas			29.90	759.4	32	0.0	90	NW	12	5.4		2k	0	N		0.01	0.3		
Dubuque, Iowa			30.18	766.6	44	6.7	68	SE	4	1.8			10s			0	0		
Duluth, Minn.			30.20	767.1	35	1.7	70	Calm	0	0		2cs	0			0	0		
Eastport, Me.			29.84	757.9	43	6.1	50	N	16	7.2		8c	0	NW		0	0		
Erie, Penn.			30.17	766.3	45	7.2	60	S	8	3.6		8c	Haze	S		0	0		
Escanaba, Mich.			30.20	767.1	30	1.1	57	N	6	2.7		5c	0	N		0	0		
Fort Gibson, I. T.			29.96	761.0	48	8.9	92	NW	10	4.5			10s		NW	0.15	3.8		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			30.18	766.6	32	0.0	90	Calm	0	0			Fog			0	0	Fog	
Galveston, Texas			30.03	762.7	62	16.7	88	NW	28	12.5			10ks		N	0.05	1.3		
Grand Haven, Mich.			30.18	766.6	37	2.8	70	Calm	0	0		5c	Haze	W		0	0		
Indianapolis, Ind.			30.13	765.3	48	8.9	42	E	4	1.8			8s		SE	0	0		
Indianola, Texas			30.07	763.8	58	14.4	81	N	32	14.3			10s		N	0.51	13.0		
Jacksonville, Fla.			30.21	767.3	67	19.4	79	NE	8	3.6			10ks		S	0	0		
Keokuk, Iowa			30.07	763.8	46	7.8	76	NE	6	2.7			10n		NE	0.03	0.8	Light rain	
Key West, Fla.			30.17	766.3	74.1	23.4	72	E	8	3.6		Haze	Haze			0	0		
Kittyhawk, N. C.			30.26	768.6	54	12.2	67	W	12	5.4		Haze	Haze			0	0		
Knoxville, Tenn.			30.20	767.1	50	10.0	58	NE	6	2.7			10s		SW	0	0		
La Crosse, Wis.			30.15	765.8	43	6.1	59	Calm	0	0			10s			0	0		
Leavenworth, Kan.			30.06	763.5	42	5.6	83	NE	6	2.7			10s		NE	0.28	7.1		
Lexington, Ky.			30.17	766.3	50	10.0	65	SW	6	2.7			10s			0	0		
Long Branch, N. J.			30.21	767.3	49	9.4	57	SW	8	3.6		0	0			0	0		
Louisville, Ky.			30.16	766.1	50	10.0	72	NE	8	3.6			10s			0	0		
Lynchburg, Va.			30.23	767.8	47	8.3	69	Calm	0	0		8k	2s	W	W	0	0		
Malone, N. Y.																			
Marquette, Mich.			30.20	767.1	36	2.2	55	Calm	0	0		8ck	0	NW		0	0		
Memphis, Tenn.			30.05	763.3	52	11.1	86	SE	4	1.8			10s			0.11	2.8		
Milwaukee, Wisconsin			30.19	766.8	41	5.0	57	W	4	1.8		8cs	Fog	NW		0	0		
Mobile, Ala.			30.13	765.3	64	17.8	83	Calm	0	0		2k	0			0	0		
Montgomery, Ala.			30.16	766.1	59.5	15.3	73	SE	2	0.9		10cs	Haze	SW		0	0		
Morgantown, W. Virginia			30.20	767.1	45	7.2	67	N	1	0.4		10cs	Haze	W		0	0		
Mt. Washington, N. H.			29.88	758.9	12	—11.1	100	N	66	29.5			Fog			0.03	0.8		
Nashville, Tenn.			30.16	766.1	51	10.6	86	E	4	1.8			10n			0.23	5.8	Light rain	
New Haven, Conn.			30.15	765.8	52	11.1	46	W	8	3.6		2cs	0	W		0	0		
New London, Conn.			30.14	765.5	49	9.4	50	W	9	4.0		1c	0	W		0	0		
New Orleans, La.			30.08	764.0	65	18.3	84	SE	8	3.6		2k	1cs		SE	0	0		
Newport, R. I.																			
New York, N. Y.			30.22	767.6	42	5.6	66	W	14	6.3		0	0			0	0		
Norfolk, Va.			30.25	768.3	51	10.6	71	SE	2	0.9		2c	Haze	W		0	0		
North Platte, Neb.			29.87	758.7	32	0.0	89	SW	2	0.9		0	1ks			0	0		
Omaha, Neb.			30.11	764.8	45	7.2	68	Calm	0	0		8ck	Sm'e	E		0	0		
Oswego, N. Y.			30.19	766.8	38	3.3	75	W	11	4.9			10ks			0	0		
Peck's Beach			30.25	768.3	50	10.0	64	NE	3	1.3		2c	2s	W		0	0		
Pembina, D. T.			30.12	765.0	35	1.7	79	S	4	1.8		0	0			0	0		
Philadelphia, Penn.			30.24	768.1	46	7.8	54	W	6	2.7		2k	0	W		0	0		
Pike's Peak, C. T.			29.84	757.9	5	—15.0	100	NE	40	17.9		0	1s			0	0		
Pittsburgh, Penn.			30.20	767.1	40	4.4	70	Calm	0	0		0	Sm'e			0	0		
Port Huron, Mich.			30.19	766.8	37	2.8	71	S	4	1.8		0	0			0	0		
Portland, Maine			29.98	761.5	43	6.1	51	NW	8	3.6		10cs	Haze			0	0		
Portland, Or.			30.22	767.6	44	6.7	68	Calm	0	0		8k	0			0	0		
Punta Rassa, Fla.			30.21	767.3	68.2	20.1	69	E	10	4.5		8cs	Sm'e			0			
Rochester, N. Y.			30.16	766.1	39	3.9	71	W	8	3.6		2cs	2s	W		0	0		
Salt Lake City, Utah			30.10	764.5	44	6.7	36	E	8	3.6		1c	0			0	0		
Sandy Hook, N. J.			30.20	767.1	43	6.1	75	W	16	7.2		2c	Haze	W		0	0		
San Diego, Cal.			30.06	763.5	57	13.9	87	E	4	1.8			10s		E	0	0		
San Francisco, Cal.			29.97	761.2	52	11.1	86	SW	4	1.8			10s			0	0		
Santa Fe, N. M.			29.81	757.2	35	1.7	54	N	4	1.8		0	0			0.04	1.0		
Savannah, Georgia			30.24	768.1	64	17.8	73	E	3	1.3		1k	Sm'e			0	0		
Shreveport, La.			30.03	762.7	55	12.8	93	WSW	8	3.6			10s		W	0.05	1.3		
Springfield, Mass.			30.11	764.8	48	8.9	56	W	8	3.6		5cs	0	W		0	0		
St. Louis, Mo.			30.09	764.3	47	8.3	77	NE	4	1.8			10n			0.05	1.3	Light rain	
St. Marks, Fla.			30.19	766.8	61	16.1	88	SE	6	2.7		0	0			0	0		
St. Paul, Minn.			30.11	764.8	39	3.9	63	Calm	0	0		0	Haze			0	0		
St. Paul's Island, Alaska			29.86	758.4	29	—1.7	77	NNE	3	1.3		10ck	1k			0.01	0.3		
Squan Beach, N. J.			30.19	766.8	44	6.7	60	W	4	1.8		2c	0			0.15	3.8		
Toledo, Ohio			30.18	766.6	42	5.6	58	N	1	0.4		2c	Haze	SW		0	0		
Tybee Island, Ga.			30.26	768.6	64	17.8	83	S	2	0.9		0	0			0	0		
Vicksburg, Miss.			30.05	763.3	61	16.1	83	S	12	5.4			10s		SW	0	0		
Virginia City, Mon.			29.70	754.4	42	5.6	49	Calm	0	0		0	0			0	0		
Washington, D. C.			30.24	768.1	48	8.9	67	Calm	0	0		Haze	Sm'e			0	0		
Wilmington, N. C.			30.29	769.4	56	13.3	74	Calm	0	0		2ck	Haze	W		0	0		
Wood's Hole, Mass.			30.10	764.5	48	8.9	62	NW	8	3.6		5c	0	NW		0	0		
Wytheville, Va.			30.02	762.5	45	7.2	53	NW	3	1.3			10s			0	0		
Yankton, D. T.			30.22	767.6	38	3.3	81	Calm	0	0		0	0			0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.5	763.3	81	27.2		E	5	2.2		5c	0	E		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.06	763.5	77	25.0		E				2k	0			0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.90	759.4	79	26.1	69	SE	8.4	3.8		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768.8	75	23.9		E	5	2.2		1ks	0	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.34	770.6			76	24.4		E	1	0.4			8k			0.025	0.63	Haze	W. S. Cameron.
Santiago de Cuba, W. I.			29.94	760.5	77	25.0	69	Calm	0	0		5c	0	S		0	0		Robert Mason.
St. Georges, Bermudas			30.21	767.3	62.5	16.9	59	NE	8.6	3.8		2k	5k	NE		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	61	16.1	73	S			1	0	2ks			0	0		E. P. Church.
Makawao, Maui, S. I.			29.96	761.0	60	15.6	88	Calm	0	0		0	10k			0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Me. herson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			30.16	766.1	5.0	—15.0	85	S	4	1.8		1c	0	S		0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	68	20.0	93	SSE	0.5	0.2		0	0			0	0		C. Partridge.
St. John's, Newfoundland			29.20	741.7	30.5	— 0.8	100	NE					10n			0.40	10.2	Snow	John Delaney.
St. John's, Porto Rico, W. I.			30.17	766.3	79.0	26.1	70	S			1	2k	5n	W		0	0		Leon M. Acuña.
Elyria, Ohio			30.19	766.8	40	4.4	82	S	4	1.8		0	0			0	0		H. M. Redington.
Indianola, Iowa	29.23	742.4			44	6.7		NE					6n			0.04	1.0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 32° 40′, W. 74° 50′	E by N	2	30.15	765.8	62	16.7	77	SE by S			2.5	..c	0	N		Smooth		Clear	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 27, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.08	764.0	70.0	21.1		NNW			2		0			0	0		Charnot.
Algiers			30.12	765 1	65.8	18.8	74	SSW			1		2			0	0		Peter.
La Calle			30.23	767.9	64.4	18.0		W			2		2			0	0		Kuntz.
Tunis			30.24	768.1	67.8	19.9	35	NW			5		3			0	0		Jacques.
Sfax			30.18	766.6	71.6	22.0		W			4		2			0	0		Chauvey.
Saïda			30.09	764.4	77.4	25.2		N			1		0			0	0		Grosjean.
Tebessa			30.17	76 .3	63.3	17.4		W			3		2			0.04	1		Colin.
Geriville			30.09	764.3	72.5	22.5		N			1		2			0	0		Bernadach.
Laghouat			30.11	764.7	72.5	22.5	14	W			2		2			0	0		Poinsignon.
Biskra			30.15	765.7	77.0	25.0		E			1		0			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.09	764.4	57.2	14.0	38	NE			2		4			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.15	765.7	53.2	11.8	57	NE			2		8			0	0		I. R. Observatory.
Eperies			30.08	763.9	51.1	10.6	46	N			3		8		S	0	0		Julius Mikolik.
Gratz			30.08	763.9	55.6	13.1	60	SSE			2		2			0	0		Andreas Rospini.
Hermannstadt			29.98	761.4	50.0	10.0	63	SE			1		9			0	0		Prof. Reissenberger.
Kremsmünster			30.12	765.0	52.2	11.2	51	NNE			2		2			0	0		Prof. C. Wagner.
Lemberg			30.08	763.9	46.4	8.0	38	NE			3		5			0	0		Dr. T. Stanecki.
Nyiregyhaza			30.05	763.3	53.6	12.0	39	N			3		9			0	0		Habzsuda Daniel.
Pola			30.08	764.0	55.6	13.1	52	WNW			2		1k			0	0		I. R. Hydrographic Office
Szegedin			30.02	762.5	55.8	13.2	35	NE			3		6			0	0		Karl Stancel.
Trieste			30.07	763.8	55.6	13.1	56	NW			1		0			0	0		Prof. V. Farolfi.
Vienna			30.13	765 2	53.8	12.1	34	N			1		2			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0-10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.80	759.2			60.1	15.6	42	S			1		08		SW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.84	757.9	58.4	14.7		WSW	6	2.7			5			0.110	27.2		William Boswell.
Annanhill																			
Ardrossan			29.93	760.2	52	11.1		NW			3		6						William McNeil.
Armagh Observatory			29.90	759.4	58.2	14.6		W	12	5.4			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.03	762.7	55.8	13.2		W			3		2						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.03	762.7	60.0	15.6		WSW			1-3		8						J. Dreyer, for L'd Rosse.
Bradford			29.97	761.2	55.1	12.8		W			2		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.08	764.0	79.0	26.1		SE			1		7						T. H Hunt.
Bywell																			
Cambridge Observatory			30.02	762.5	65.0	18.3		SW			1		2						H. Todd.
Cape Town, (Cape Colony)			29.96	761.0	65.0	18.3		SE			6		5						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.00	762.0			64.7	18.2	66	S	20	8.9			3						The Staff, for E. J. Stone.
Cardington			30.06	763.5	64.0	17.8		W					8						John McLaren.
Carlisle			29.98	761.5	55.6	13.1		W					9			0.20	5.1		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.03	762.7	57.6	19.8		S			2		5						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.83	757.7	84.6	29.2		SW			5		6						Sgt. W. F. Hopkins
Dartmoor			30.15	765.8	48.8	9.3		Calm			0		10						R. E. Power.
Donaghadee			29.95	760.7	58	14.4		W			3		5						J. Mac Gowan, Jr.
Dover			30.08	764.0	54	12.2		SW			2		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.01	762.2	57.0	13.9		WSW	7.8	3.5			6						Thomas Mackereth.
Falmouth Observatory			30.12	764.5	52.6	11.4		NNW	14	6.3			10					Fog	The Staff.
Fort Napier, (Natal)			29.89	759.2	75.4	24.1		E			4		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			29.99	761.7	57	13.9		SW			2		4						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.07	763.8	69.5	20.8		SSW			3		2						Sergt. E. G. Baker.
Glasgow Observatory			29.89	759.2	53.4	11.9		W			2		8					Mist	James Gray.
Great Yarmouth			30.05	763.3	51	10.6		S			3		6					Mist	G. T. Watson.
Greenwich Royal Obs.			30.05	763.3	67.1	19.5		WSW			1		7						The Staff, for G. B. Airy.
Guernsey			30.08	764.0	54.5	12.5		SSW			1		8					Mist	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			29.95	760.7	55.3	12.9		WNW					6					Rain	F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.85	758.2	34.0	1.1		NW			5		1						Corp'l J. Y. Thompson.
Helston			30.05	763.3	56	13.3		NW			4		10					Haze	Dr. W. B. Moyle.
Holyhead			30.05	763.3	54	12.2		SW			3		4						John Tilston.
Hull Park																			
Kew Observatory			30.04	763.0	63.3	17.4		SW	12	5.4			4						The Staff.
Kingstown			30.02	762.5	57	13.9		W			4		7						George Mitchell.
Lampeter																			
Leicester Museum			30.07	763.7	54.0	12.2		SW			1		6						William J. Harrison
Llandudno			30.02	762.5	59.8	15.4		W					1						Dr. James Nicol.
Malta, (Mediterranean)			29.99	761.7	64.0	17.8		NW			1		4k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville													10					Rain	William D. Penny.
Nairn			29.81	757.2	54	12.2		Calm			0		5						Surg.-Maj. J. Jameson.
Nassau, (Bahamas)			30.14	765.5	78.1	25.6		E			3		7						John Wm. Irvine.
North Shields			30.04	760.5	57	13.9		WNW			4		10k		WSW				E. J. Lowe.
Nottingham			30.06	763.5	58	14.4		WSW			1								
Osborne, New Barn Cottage													10					Mist	Rev. Stephen Whitty.
Oscott, St Mary's College			30.03	762.7	56.2	13.4		W			3		10						J. Lucas, for R. Main.
Oxford, Radcliffe Obs.			30.03	762.7	61	16.1		WNW			0		10						John Merrifield.
Plymouth			30.08	764.0	53	11.7		Calm			2								
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel													2						W. Kennedy.
Roche's Point			30.06	763.5	55	12.8		SW			4		10					Fog	John C. Walker.
Saint Ann's Head			30.09	764.3	54	12.2		Calm			0		10						A. P. Amy.
Saint Helier, (Jersey)			30.10	764.5	53.8	12.1		SSW			4		5						Rev. C. Clouston.
Sandwick Manse (Orkneys)			29.80	756.9	49.0	9.4		W	20	8.9			8						F. Shaw.
Scarborough			29.98	761.5	57.2	14.0		WSW			2		10					Mist	Sergt. W. H. Lyne.
Scutari, (Turkey)			29.83	757.7	52.4	11.3		N			3		7			0	0		W. F. Cooper.
Sheffield			29.99	761.7	59.3	15.2		WNW			3								
Sidmouth													3			0	0		Rev Francis Redford.
Silloth Rectory			29.96	761.0	58.0	14.4		SW			6		7						Rev. C. J. Steward.
Somerleyton, (Lowestoft)			30.03	762.7	62.0	16.7		SSW			1		10					Threatening	The Staff.
Stonyhurst Observatory			30.00	762.0	53.8	12.1		W			3		7						John Smith.
Stornoway, Lews C. (Hebr)			29.78	756.4	55	12.8		WSW			5		5						Rev Charles H. Griffith
Strathfield Turgiss			30.05	763.3	64.0	17.8		W			1								Rev. John Slatter.
Streatley Vicarage													10					Rain	William Lawrence.
Sumburgh Head, (Shetland)			29.73	755.1	46	7.8		WNW			4								
Taunton College													7						John Trotter.
Thurso			29.79	756.7	55	12.8		W			2		10						W. Newcombe.
Truro Royal Institution			30.03	762.7	55	12.8		NW			4		9						The Staff.
Valencia Observatory			30.06	763.5	56.9	13.8		SW	16	7.2									
Wick																			
Wisbeach													3						William J. Harris.
Worthing			30.09	764.3	56.8	13.8		SW			1								
York*																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			30.06	763.5	51.4	10.8	39	W			2		1						
Fanöe			30.07	763.7	45.3	7.4	74	WSW			4		3						
Godthaab, (Greenland)			29.43	747.6	48.0	8.9		E			4		8						
Stykkisholm, (Iceland)			29.66	753.3	39.4	4.1	82	E			6		8						
Thorshavn, (Faröe)			29.69	754.2	51.3	10.7	77	WSW			2		10						
Vesterviig			29.97	761.3	44.6	7.0	75	SSW			6		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.03	762.7	61.7	16.5	81						1cs						Normal School.
Alençon			30.08	764.1	66.2	19.0	65	SW			1		2			0.181	4.6		Normal School.
Amiens			30.09	764.4	65.8	18.8	76	WSW			3		2		WSW	0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.10	764.5	63.1	17.3	26	SE			1		2		NE	0	0		Normal School.
Besançon			30.11	764.8	63.7	17.6	35	WSW			3		0			0	0		Normal School.
Bourges			30.11	764.8	60.4	15.8	51	NW			1		2		NW	0	0		Normal School.
Brest			30.08	764.1	54.5	12.5	76	NW			3		10		NW	0.158	4.00		Naval Observatory.
Caen			30.07	763.8	63.7	17.6	49	S			2		0			0	0		Normal School.
Carcassonne																			
Chartres			30.08	764.1	66.2	19.0		SW			1		0			0	0		Normal School.
Chaumont			30.07	763.6	63.7	17.6		SSW			2		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.08	763.9	57.6	14.2	39	N			1		0			0	0		Normal School.
Orleans																			Normal School.
Paris Observatory			30.09	764.3	64.4	18.0		WSW			1		5ck		W	0	0		National Observatory.
Parthenay			30.06	763.5	62.6	17.0	58	SW			2		2		W	0	0		Normal School.
La Roche sur Yon			30.11	764.8	58.6	14.8	58	E			1		5		SW	0	0		Normal School.
Rouen			30.07	763.8	67.8	19.9	30	S			2		0			0	0		Normal School.
Saint Lo			30.10	764.6	61.5	16.4	49	W			1		5		W	0	0		Normal School.
Villefranche			30.11	764.8	63.9	17.7	71	NNE			3		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.91	632.6			52.0	11.1	49	E	18.6	8.33			5		SW	0	0		—, Falguère.
Montsouris Observatory			30.09	764.3	67.5	19.7	27		0.4	0.17			2ck		N	0	0		Marié Davy.
Perpignan	29.95	760.7			70.0	21.6	25	NW	11.2	5.00			4			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.08	764.0	67.1	19.5	28	SSE			1		2		W	0	0		C. Marquet.
Versailles, (near Paris)			30.09	764.4	67.6	19.8	21	SSE			2		3			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.09	764.2	47.5	8.6	86	NW	0.9	0.4			5			0	0		H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.04	763.0	54.5	12.5	45	NW			2		2			0	0		Prof. Hoh.
Berlin			30.16	766.1	57.2	14.0	47	SW			1		3			0	0		Prof. Arndt.
Breslau			30.21	767.4	52.9	11.6	35	SW			2		4			0	0		Dr. P. Naugebauer.
Carlsruhe			30.09	764.3	62.2	16.8	23	S			2		0			0	0		A. Senz.
Cassel			30.06	763.5	60.8	16.0	41	S-E			2		0			0	0		Dr. H. Möhl.
Cologne			30.23	767.9	50.4	10.2	53	ENE			2		0			0	0		Dr. Garthe.
Emden			30.17	766.3	58.3	14.6	32	S			1		0			0	0		Prof. Prestel.
Frankfort on the Main			30.18	766.6	62.1	16.7	36	SW			1		1			0	0		Physical Society.
Friedrichshafen			30.12	765.1	54.5	12.5	54	W					0			0	0		M. Wilhelm.
Hamburg			30.15	765.9	51.1	10.6	50	SW			3		1			0	0		W. Reinert.
Kiel			30.13	765.4	54.3	12.4	43	W			4		1			0	0		Prof. G. Karsten.
Königsberg			30.04	763.0	50.7	10.4	40	W			2		3			0	0		Prof. E. Luther.
Köslin			30.31	769.8	45.0	7.2		NW			3		3			0	0		Dr. T gert.
Leipsic			30.13	765.3	56.8	13.8	35	SSE			2		0			0	0		Prof. Bruhns.
Münster			30.11	764.9	59.0	15.0	75	NW			2		0			0	0		Prof. E. Heis.
Posen			30.15	765.8	57.9	14.4	38	W			3-4		1			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.10	764.5	61.0	16.1	33	Calm					0			0	0		Hartwig and Tülk.
Stuttgart			30.07	763.8	62.1	16.7	31	E					0			0	0		Mr. Würth.
Thorn			30.09	764.3	54.5	12.5	40	WNW			2		5			0	0		Dr. Hasenbalg.
Treves, (Trier)			30.06	763.4	62.1	16.7	33	S			3		0			0	0		Prof. Flesch.
Wustrow			30.15	765.7	41.4	5.2	79	NW			2		2			0	0		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.06	763.5	63.1	17.3	50	S	1.3	0.6			3	E		0	0		
Mondovi			30.04	763.1	59.5	15.3	43	NW			4		2	NNW		0	0		
Genoa			30.09	764.2	61.9	16.6	64	S	2.5	1.1			4	S		0	0		
Pavia			30.06	763.4	62.4	16.9	33	NE			4		0			0	0		
Verona			30.04	763.0	65.3	18.5	36	E			2		0			0	0		
Padua			30.07	763.6	59.7	15.4	42	SE	4.9	2.2			1	NW		0	0		
Parma																			
Bologna			30.08	763.9	60.1	15.6	17	SE			4		0			0	0		
Livorno			30.08	764.0	62.4	16.9	88	NE	7.4	3.3			1			0	0		
Urbino			30.09	764.4	48.7	9.3	57	NE			4		3			0	0		
Ancona			30.08	763.9	56.5	13.6	62	N			4		0			0	0		
Siena			30.05	763.2	59.0	15.0	15	E	1.3	0.6			0			0	0		
Rome			30.00	761.9	64.2	17.9	33	W	4.3	1.9			1			0	0		
Naples, O.U.			30.00	762.0	66.4	19.1	33	NE			2		4	NNW		0	0		
Lecce			29.90	759.5	59.0	15.0	63	N	18.6	8.3			3			0	0		
Cosenza			29.95	760.6	59.5	15.3	54	NW			2		10			0	0		
Catania, (Sicily)			29.99	761.7	62.2	16.8	62	SE			4		0			0	0		
Riposto																			
Palermo			29.93	760.2	62.1	16.7	49	W			2		4	NW		0	0		
SUB-SERIES.																			
Naples, S. R.	29.28	743.8			62.6	17.0	46	E			2-4		5			0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.12	765.1	59.0	15.0		SE			2								
Groningen			30.05	763.3	55.0	12.8		SW			2								
Helder			30.08	763.9	54.3	12.4		SSW			4								
Utrecht			30.07	763.7	60.4	15.8	35	SSW			2		0						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.84	757.9	46.4	8.0	59	S	10.7	4.8			10			0.276	7.0		
Christiania			29.76	757.1	55.6	13.1	36	SSW	10.1	4.5			2			0	0		
Tromsö			29.56	750.8	36.7	2.6	55	Calm			0		10			0.425	10.8	Snow	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.82	757.3			64.8	18.2	69	SW	16.1	7.2			10						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			30.11	764.9	51.6	10.9	45	W	7	3			10						Astronomical Obs.
Wilna			30.08	764.1	45.9	7.7	59	WNW	8	3.5			7						Astronomical Obs.
Dorpat			29.88	758.9	38.5	3.6	58	W.	16	7			10					Snow	Physical Cabinet.
St. Petersburg			29.71	754.7	35.6	2.0	59	SW	20	9			10						Central Physical Obs.
Kieff			30.08	764.0	44.4	6.9	27	NNE	7	3			6						Physical Cabinet.
Kuopio																			
Nikolaiev			29.98	761.4	49.8	9.9	65	N.	8	3.5			3					Rain	
Kertch			29.77	756.1	55.0	12.8	85	S	2	1			10						Lagorio.
Moscow			29.95	760.8	34.3	2.3	59	NW	10	4.5			4						Meteorological Obs.
Lugan			29.78	756.3	45.7	7.6	88	NNE	13	6			10						Meteorological Obs.
Archangel			29.71	754.7	38.8	3.8	60	W	4	2			8						Ogorodnikof.
Tiflis			29.82	757.3	71.6	22.0	48	W	10	4.5			10						Physical Obs.
Astrakhan			29.95	760.6	62.6	17.0	58	ENE	8	3.5			7						Sebastianof.
Kasan			29.92	759.9	43.3	6.3	58	WSW	13	6			10						Physical Cabinet.
Orenburg			30.28	769.2	55.2	12.9	24	E	4	2			0						Tschernischef.
Ekaterinburg			30.23	767.7	39.2	4.0	36	SW	13	6			8						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.15	765.7	46.4	8.0	76	NE	4	2			4						Meteorological Obs.
Yeniseisk			30.84	757.8	49.1	9.5	45	E	13	6			10						Marks.
Irkutsk																			Usolzef.
Oorga			30.98	761.4	34.7	1.5	65	Calm	0	0			10						Mossin.
Peking, (China)			30.93	760.2	52.3	11.3	41	SE	8	3.5			0						Physical Observatory
Nertchinsk			30.91	759.8	29.3	— 1.5	45	Calm	0	0			1						Meteorological Obs.
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.02	762.6	72.1	22.3	39	W	10.5	4.7		3	1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.67	753.7	35.6	2.0	51	N			1		2			0.04	1.1		
Hernosand			29.67	753.6	38.3	3.5	62	E			3		8			0.02	0.5		
Stockholm			29.71	754.6	49.6	9.8	42	WSW			5		4			0	0		
Wisby			29.88	759.0	45.0	7.2	69	W			5		0			0.19	4.7		
Sub-Series.																			
Upsala			29.71	784.7	50.4	10.2	50	W			4		9						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.68	728.5			58.8	14.9	28	N			2		4			0	0	Mist	The Observatory.
Zurich	28.44	722.4			62.8	17.1	28	NE			1		0			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.0mm.; Thermometer, +1°.2 C.; Relative Humidity, —29 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.73	755.1	78.1	25.6	48	NE			2		5						
Constantinople			29.86	758.5	50.2	10.1	82	NW	20	9			10		N	0.134	3.4	Rain	
Fao, (Persian Gulf)			29.90	759.4	82.4	28.0		NW			1		0						
Salonica					54.5	12.5		N			4		10						
Valona			29.81	757.2	63.7	17.6		SW			1		8						
Varna			29.96	761.0	48.2	9.0		E			4		10						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			30.23	767.7	42	5.6		Calm	0	0		0	0			0	0		
Chatham, N. B.			29.90	759.4	29	— 1.7	66	NW	19	8.5		0	0			0	0		
Charlottetown, P. E. Island			29.81	757.2	29	— 1.7	63	NW	15	6.7			8s		NW	0	0		
Fort Garry, Manitoba			29.55	750.6	46	7.8	58	SW	17	7.6		2c	5s	W		0	0		
Halifax, N. S.			29.77	756.1	34	1.1	54	NW	23	10.3		0	0			0	0		
Kingston, Ontario			30.19	766.8	40	4.4	74	Calm	0	0		0	0			0	0		
Montreal, Quebec			30.15	765.8	38	3.3	41	NE	1	0.4		0	0			0	0		
Ottawa, Ontario			30.16	766.1	34	1.1	62	N	2	0.9		0	0			0	0		
Parry Sound, Ontario			30.14	765.5	36	2.2	62	SE	5	2.2		0	0			0	0		
Port Dover, Ontario			30.12	765.0	39	3.9	55	NE	6	2.7		0	0			0	0		
Port Stanley, Ontario			30.16	766.1	40	4.4	54	E	6	2.7		0	0			0	0		
Quebec, Quebec			30.11	764.8	26	— 3.3	63	W	7	3.1		0	0			0	0		
Saugeen, Ontario			30.11	764.8	39	3.9	61	NE	3	1.3		0	0			0	0		
Stayner, Ontario			30.12	765.0	39	3.9	41	Calm	0	0		0	0			0	0		
Sydney, C. B.			29.64	752.8	33	0.6	74	W	15	6.7			8ks		NW	0	0		
Toronto, Ontario			30.13	765.3	43	6.1	61	E	7	3.1		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			30.15	765.8	44	6.7	67	N	2	0.9		0	Haze			0	0		
Alpena, Mich.			30.08	764.0	38	3.3	46	Calm	0	0		0	Sm'e			0	0		
Atlantic City, N. J.			30.11	764.8	45	7.2	76	E	11	4.9		1'cs	0	W		0	0		
Augusta, Ga.			29.92	760.0	65	18.3	89	SE	3	1.3			10s		SE	0	0	Threatening	
Baltimore, Md.			30.09	764.3	51	10.6	59	NE	5	2.2			10s			0	0		
Barnegat, N. J.			30.14	765.5	45	7.2	75	NE	3	1.3		0	8s			0	0		
Benton, Montana			30.09	764.3	35	1.7	80	N	4	1.8		5k	0	N		0	0		
Bismarck, Dakota			29.59	751.6	48	8.9	70	NW	17	7.6			10ks		NW	0	0	Threatening	
Boston, Mass.			30.12	765.0	48	8.9	49	NW	6	2.7		0	0			0	0		
Breckenridge, Minn.			29.88	758.9	40	4.4	80	S	4	1.8		8cs	0	NW		0	0		
Buffalo, N. Y.			30.11	764.8	41	5.0	51	E	4	1.8		0	0			0	0		
Burlington, Vt.			30.16	766.1	37	2.8	62	N	4	1.8		0	2s			0	0		
Cairo, Ill.			29.82	757.4	53	11.7	93	N	8	3.6			10s		N	0.48	12.2	Threatening	
Cape Hatteras, N. C.			30.05	763.3	64	17.8	83	SW	10	4.5		10cs	Haze	SW		0	0		
Cape Henry, Va.			30.06	763.5	53	11.7	100	E	10	4.5			10n			0	0	Light rain	
Cape May, N. J.			30.09	764.3	47	8.3	77	E	12	5.4			10s			0	0		
Charleston, S. C.			30.00	762.0	67	19.4	90	S	8	3.6		8cs	2s	S	SW	0	0		
Cheyenne, W. T.			29.96	761.0	46	7.8	30	N	8	3.6		2c	0			0	0		
Chicago, Ill.			30.01	762.2	40	4.4	73	N	7	3.1		0	0			0	0		
Cincinnati, Ohio			29.92	760.0	50	10.0	78	NE	8	3.6			10s			0.04	1.0		
Cleveland, Ohio			30.03	762.7	47.8	8.8	38	E	4	1.8		5c	Sm'e	SW		0	0		
Colorado Springs, Col.			29.94	760.5	43	6.1	51	W	4	1.8			10s			0	0		
Corsicana, Texas			30.12	765.0	45	7.2	84	NW	3	1.3		0	0			0	0		
Davenport, Iowa			30.04	763.0	42	5.6	56	E	4	1.8		0	Sm'e			0	0		
Denver, Col.			29.99	761.7	46	7.8	54	S	4	1.8		2c	2s	W	W	0	0		
Detroit, Mich.			30.07	763.8	42	5.6	58	E	8	3.6		Haze	Haze			0	0		
Dodge City, Kansas			29.71	754.6	42	5.6	74	SW	8	3.6		Haze	0			0	0		
Dubuque, Iowa			30.10	764.8	39	3.9	64	Calm	0	0		Haze	0			0	0		
Duluth, Minn.			29.96	761.0	34	1.1	69	NE	4	1.8		0	0			0	0		
Eastport, Me.			30.0	762.2	33	0.6	50	N	16	7.2		0	0			0	0		
Erie, Penn.			30.08	764.0	40	4.4	64	NE	4	1.8		2c	Haze			0	0		
Escanaba, Mich.			30.05	763.3	30	—1.1	67	N	2	0.9		0	0			0	0		
Fort Gibson, I. T.			30.00	762.0	45	7.2	85	NW	4	1.8		0	8ks		N	0.02	0.5	Clearing	
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.71	754.6	41	5.0	74	Calm	0	0		5cs	0	NW		0	0		
Galveston, Texas			30.11	764.8	59	15.0	66	NE	7	3.1		0	0			0	0		
Grand Haven, Mich.			30.04	763.0	42	5.6	58	E	7	3.1		0	Haze			0	0		
Indianapolis, Ind.			29.94	760.5	44	6.7	84	NE	8	3.6		10ck	5s		NE	0.10	2.5	Clearing	
Indianola, Texas			30.13	765.2	66	18.9	73	Calm	0	0		0	0			0	0		
Jacksonville, Fla.			30.02	762.5	68	20.0	68	SE	16	7.2		6k	0	W		0	0		
Keokuk, Iowa			29.96	761.0	46	7.8	68	NE	6	2.7		2c	0	NE		0.03	0.8		
Key West, Fla.			30.07	763.8	76.5	24.7	82	S	8	3.6		0	Sm'e			0	0		
Kittyhawk, N. C.			30.04	763.0	57	13.9	75	SW	4	1.8			10s			0	0		
Knoxville, Tenn.			29.86	758.4	52.5	11.4	93	NE	4	1.8			10n			1.74	44.2	Light rain	
La Crosse, Wis.			30.03	762.7	43	6.1	67	S	6	2.7		Haze	Haze			0	0		
Leavenworth, Kan.			29.98	761.2	46	7.8	75	Calm	0	0		0	Fog			0.01	0.3		
Lexington, Ky.			29.86	758.4	50	10.0	68	E	6	2.7			10s			0.77	19.6		
Long Branch, N. J.			30.16	766.1	46	7.8	76	NE	1	0.4		0	5s			0	0		
Louisville, Ky.			29.85	758.2	50	10.0	86	N	5	2.2			10s			0.06	1.5		
Lynchburg, Va.			30.02	762.5	51	10.6	89	NE	5	2.2			10n		NE	0.18	4.6	Light rain	
Malone, N. Y.																			
Marquette, Mich.			30.03	762.7	36	2.2	61	SE	4	1.8		0	0			0	0		
Memphis, Tenn.			29.88	758.9	51	10.6	93	W	8	3.6			10s			0.24	6.1		
Milwaukee, Wisconsin			30.07	763.8	38	3.3	71	NE	5	2.2		0	Sm'e			0	0		
Mobile, Ala.			29.95	760.7	65	18.3	78	NW	6	2.7		2k	1s	NW	NW	0.47	11.9		
Montgomery, Ala.			29.87	758.7	65	18.3	84	SW	8	3.6			10s		SW	0.01	0.3	Threatening	
Morgantown, W. Virginia			29.96	761.0	50	10.0	77	NE	2	0.9			10s			0.06	1.5	Threatening	
Mt. Washington, N. H.			29.91	759.7	5	—15.0	75	N	45	20.1		0	Haze			0	0		
Nashville, Tenn.			29.78	756.4	58	14.4	87	Calm	0	0			10n			0.90	25.1	Light rain	
New Haven, Conn.			30.16	766.1	50	10.0	51	N	1	0.4		1c	0	SW		0	0		
New London, Conn.			30.16	766.1	54	12.2	49	N	5	2.2		1c	0	W		0	0		
New Orleans, La.			30.01	763.0	58	14.4	64	NW	12	5.4		2c	0	NW		2.10	53.3		
Newport, R. I.																			
New York, N. Y.			30.16	766.1	52	11.1	53	Calm	0	0		0	Fog			0	0		
Norfolk, Va.			30.05	763.3	55	12.8	100	E	7	3.1			10n			0.72	18.3	Heavy rain	
North Platte, Neb.			29.48	748.8	40	4.4	82	S	16	7.2		5c	0	S		0	0		
Omaha, Neb.			29.97	761.2	39	3.9	92	SE	2	0.9		2c	Fog			0	0		
Oswego, N. Y.			30.16	766.1	43.5	6.4	60	S	1	0.4		Haze	Haze			0	0		
Peck's Beach			30.13	765.3	45	7.2	92	E	14	6.3			10s			0	0		
Pembina, D. T.			29.55	750.6	44	6.7	67	SE	28	12.5		5c	2s			0	0		
Philadelphia, Penn.			30.15	765.8	49	9.4	56	E	7	3.1		5ck	2s	N	E	0	0		
Pike's Peak, C. T.			29.96	761.0	17	—8.3	83	W	36	16.1		10k	0	N		0	0		
Pittsburgh, Penn.			30.01	762.2	45	7.2	84	NE	4	1.8						0	0	Dense smoke	
Port Huron, Mich.			30.08	764.0	39	3.9	72	Calm	0	0		0	0			0	0		
Portland, Maine			30.12	765.0	41	5.0	33	NW	6	2.7		0	0			0	0		
Portland, Or.			30.28	769.1	44	6.7	76	N	4	1.8		Haze	Haze			0	0		
Punta Rassa, Fla.			30.11	764.8	72.4	22.4	75	SE	10	4.5		5cs	1s	SW	SW	0	0		
Rochester, N. Y.			30.12	765.9	42	5.6	58	SW	2	0.9		0	0			0	0		
Salt Lake City, Utah			29.98	761.5	53	11.7	40	NE	1	0.4		1c	0			0	0		
Sandy Hook, N. J.			30.13	765.3	48	8.9	62	E	2	0.9		8c	Haze	W		0	0		
San Diego, Cal.			30.03	762.7	57	13.9	81	SW	4	1.8			10s			0	0		
San Francisco, Cal.			29.97	761.2	52	11.1	79	SW	10	4.5			10s			0	0		
Santa Fe, N. M.			29.79	756.7	40	4.4	48	Calm	0	0		2c	0	SW		0	0		
Savannah, Georgia			29.98	761.5	66	18.9	84	S	10	4.5			10ks		SW	0	0		
Shreveport, La.			30.09	764.3	47	8.3	85	W	7	3.1		0	0			0	0		
Springfield, Mass.			30.15	765.8	46	7.8	54	Calm	0	0		0	Haze			0	0		
St. Louis, Mo.			29.94	760.5	48	8.9	77	NE	9	4.0			10s			0.20	5.1		
St. Marks, Fla.			29.97	761.2	67	19.	90	S	20	8.9			10ks		S	0	0		
St. Paul, Minn.			29.92	760.0	41	5.0	73	SE	3	1.3		0	Haze			0	0		
St. Paul's Island, Alaska			29.29	744.0	33	0.6	80	WNW	5	2.2		2c	0			0.65	16.5		
Squan Beach, N. J.			30.12	765.0	44	6.7	75	NE	4	1.8			8s			0	0		
Toledo, Ohio			30.04	763.0	49	9.4	57	NE	9	4.0		0	0			0	0		
Tybee Island, Ga.			29.94	760.5	65	18.3	90	S	10	4.5		2ck	5s	SW		0.05	1.3		
Vicksburg, Miss.			30.06	763.5	53	11.7	68	W	11	4.9			8ks		W	0.01	0.3		
Virginia City, Mon.			29.81	757.2	33	0.6	61	E	2	0.9		0	0			0	0		
Washington, D. C.			30.07	763.8	50.5	10.3	71	E	8	3.6			10s			0	0		
Wilmington, N. C.			30.05	763.3	65	18.3	83	S	12	5.4			10s		SW	0.03	0.8		
Wood's Hole, Mass.			30.14	765.5	48	8.9	56	NW	6	2.7		0	0			0	0		
Wytheville, Va.			29.72	754.9	50	10.0	86	E	6	2.7			10s			0.31	7.9		
Yankton, D. T.			29.94	760.5	40	4.4	73	S	4	1.8		2c	0	NW		0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.07	763.8	80	26.7		E	6	2.7		2ck	0	E		0	0		E. Racker.
Pointe-à-Pitre, G'd'loupe, do			30.02	762.5	76	24.4		SE				5c	5c	SE		0.19	4.8		L. V. Bigard.
Havana, Cuba, W. I.			29.83	757.7	80	26.7	86	SE	2.4	1.1		2fck	0	SW		0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.27	768 8	76	24.4		Calm	0	0		1c	1s	E		0	0		James Gall.
St. Thomas, St. T., W. I.	30.20	769.4			77	25.0		E	3	1.3		2ck	8k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.91	759.7	78	25.6	78	Calm	0	0		0	0			Blank	Blank	Clearing	Robert Mason.
St. Georges, Bermudas			30.19	766.8	63.5	17.5	70	SW	4.8	2.2		0	2k			0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	61	16.1	66	Calm			0	0	5ks			0	0		E. P. Church.
Makawao, Maui, S. I.			29.98	761.5	59	15.0	88	S	2.4	1.1		0	1k			0.08	2.0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. McPherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.53	750.0	28.5	− 1.9	100	E	9	4.0			10cs			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.07	763.8	69	20.6	93	SE	2.0	0.9		0	2k			0	0		C. Partridge.
St. John's, Newfoundland			29.50	749.3	40	4.4	81	W				5k	5s			0.30	7.6		John Delaney.
St. John's, Porto Rico, W. I			30.13	765.4	80 6	27.0	63	E				2cs	0			0.295	0.75		Leon M. Acuña.
Elyria, Ohio			30.02	762.5	42	5.6	65	NE	4	1.8		0	2c			0	0		H. M. Redington.
Indianola, Iowa	29.14	740.1			42	5.6		NE				0	1s			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 32° 24′, W. 73° 02′	E by S	6	30.09	764.3	68	20.0	79	S			7		5k			Short sea.		Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2.205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 28, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.09	764.2	68.2	20.1		NE			2		2			0	0		Charnot.
Algiers			30.13	765.3	66.6	19.2	70	E			1		4			0	0		Peter.
La Calle			30.24	768.0	64.8	18.2		SW			2		6			0	0		Kuntz.
Tunis			30.12	765.2	68.5	20.3	51	W			3		4			0	0		Jacques.
Sfax			30.22	767.5	68.0	20.0		E			4		1			0	0		Chauvey.
Saïda			30.07	763.6	75.2	24.0		SW			1		7			0	0	Sirocco	Grosjean.
Tebessa			30.19	766.8	68.2	20.1		W			2		6			0	0		Colin.
Geriville			30.06	763.5	73.4	23.0		ESE			2		3			0	0		Bernadach.
Laghouat			30.10	764.5	74.3	23.5	17	SW			2		7			0	0		Poinsignon.
Biskra			30.12	765.0	75.4	24.1		SE			2		0			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.07	763.7	61.7	16.5	35	SW			1		2			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.97	761.2	59.5	15.3	43	WSW			3		1			0	0		I. R. Observatory.
Eperies			29.95	760.7	56.8	13.8	49	SE			1		1			0	0		Julius Mikolik.
Gratz			30.01	762.2	61.0	16.1	57	S			2		0			0	0		Andreas Rospini.
Hermannstadt			30.01	762.3	55.8	13.2	38	NE			3		3			0	0		Prof. Reissenberger.
Kremsmünster			29.96	760.9	62.6	17.0	33	WNW			2		3			0	0		Prof. C. Wagner.
Lemberg			29.98	761.4	53.8	12.1	41	S			3		1			0	0		Dr. T. Stanecki.
Nyiregyhaza			29.98	761.6	57.6	14.2	45	N			3		0			0	0		Habzsuda Daniel.
Pola			30.10	764.5	56.7	13.7	59	WSW			2		0			0	0		I. R. Hydrographic Office
Szegedin			30.04	763.1	59.0	15.0	28	SE			3		4			0	0		Karl Stancel.
Trieste			30.11	764.7	58.8	14.9	58	WNW			1		0			0	0		Prof. V. Farolfi.
Vienna			29.96	760.9	66.2	19.0	33	SSE			1		1			0	0		I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.94	760.4			63.0	17.2	50	WNW			1		10ks		NW	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	* Clouds. Amount. Up'er 0—10.	* Clouds. Amount. Low'r 0—10.	* Clouds. Direction. Upper. From—	* Clouds. Direction. Low r. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.98	761.5	55.0	12.8		S	10	4.5			9			0.375	9.52	Rain	William Boswell.
Annanhill																			
Ardrossan																			William McNeil.
Armagh Observatory			30.10	764.5	55.8	13.2		SW	14	6.3			8						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.13	765.3	57.2	14.0		WNW			2		5						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.12	765.0	58.7	14.8		SW			1–2		9						J. Dreyer, for L'd Rosse.
Bradford			30.06	763.5	61.9	16.6		W			1		2						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.02	762.5	84.0	28.9		SE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.12	765.0	65.0	18.3		W			1		10						H. Todd.
Cape Town, (Cape Colony)			30.02	762.5	65.0	18.3		SE			2		10					Showery	Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.04	763.0			65.0	18.3	80	SSW					10						The Staff, for E. J. Stone.
Cardington			30.15	765.8	66.0	18.9		W					7						John McLaren.
Carlisle			30.09	764.3	62.0	16.7		W					3			0	0		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.12	765.0	65.3	18.5		SW			2		8					Haze	Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.87	758.7	85.0	29.4		SW			3		3						Sgt. W. F. Hopkins
Dartmoor			30.30	769.6	53.5	11.9		SW			1		7						R. E. Power.
Donaghadee			30.07	763.8	59	14.4		W			4		5						J. Mac Gowan, Jr.
Dover			30.17	766.3	50	10.0		SW			3		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.12	765.0	62.6	17.0		WNW	6.2	2.8			3						Thomas Mackereth.
Falmouth Observatory			30.25	768.3	53.9	12.2		SSE	3	1.3			9						The Staff.
Fort Napier, (Natal)			29.86	758.4	81.6	27.6		NE			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			[tis.
Galway, Queen's College			30.04	763.0	58	14.4		W			1		3						B. G. Clare, for Prof. Cur-
Gibraltar, (Mediterranean)			30.07	763.8	61.5	16.4		NE			4		5						Sergt. E. G. Baker.
Glasgow Observatory			29.03	762.7	55.3	12.9		SW			1		10						James Gray.
Great Yarmouth			30.14	765.5	53	11.7		Calm			0		7					Mist	G. T. Watson.
Greenwich Royal Obs.			30.16	766.1	66.9	19.4		W			1		7					Mist	The Staff, for G. B. Airy.
Guernsey			30.25	768.3	52.5	11.4		NW			1		3					Haze	Dr. S. E. Hoskins. [ley.
Halifax, Moorside Obs.			30.05	763.3	61.7	16.5		WNW					5					Showery	F. J. Page, for L. J. Cross-
Halifax, (Nova Scotia)			29.84	757.9	41.9	5.5		NW			2		8						Corp'l J. Y. Thompson.
Helston			30.19	766.8	61	16.1		SSW			3		3						Dr. W. B. Mavle.
Holyhead			30.15	765.8	53	11.7		SSW			4		1						John Tilston.
Hull Park																			
Kew Observatory			30.16	766.1	63.2	17.3		W	9	4.0			4						The Staff.
Kingstown			30.14	765.5	57	13.9		ESE			4		8						George Mitchell.
Lampeter																			
Leicester Museum			30.15	765.8	60.0	15.6		SW			1		10						William J. Harrison
Llandudno			30.14	765.5	61.4	16.3		W					1						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	63.0	17.2		NE			1		6k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.93	760.2	53	11.7		W			1		10					Rain	William D. Penny.
Nassau, (Bahamas)			30.03	762.7	77.3	25.2		W			4		4						Surg.-Maj. J. Jameson.
North Shields			30.06	763.5	59	15.0		W			2		8						John Wm. Irvine.
Nottingham			30.13	765.3	66.0	18.9		WSW			1		7kd		WSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.12	765.0	60.9	16.1		SW			2		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.13	765.3	63	17.2		WSW			1		5						J. Lucas, for R. Main.
Plymouth			30.23	767.8	63	11.7		SSW			3		7					Fog	John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.14	765.5	56	13.3		SW			3		10						W. Kennedy.
Saint Ann's Head			30.19	766.8	53	11.7		WSW			1		10					Fog	John C. Walker.
Saint Helier, (Jersey)			30.24	768.1	53.8	12.1		SW			2		10						A. P. Amy.
Sandwick Manse (Orkneys)			29.91	759.7	50.6	10.3		S	12	5.4			10					Rain	Rev. C. Clouston.
Scarborough			30.09	764.3	55.0	12.8		S			1		7		W				F. Shaw.
Scutari, (Turkey)			30.02	762.5	51.4	10.8		NNE			4		9						Sergt. W. H. Lyne.
Sheffield			30.01	764.5	65.3	18.5		WNW			3		3			0.27	6.9		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.08	764.0	59.5	15.3		SW			6		3			0.010	0.25		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.13	765.3	54.6	12.6		NNE			1		10						Rev. C. J. Steward.
Stonyhurst Observatory			30.12	765.0	56.5	13.6		W			2		6					Threatening	The Staff.
Stornoway, Lews C. (Hebr).			29.85	758.2	52	11.1		SW			5		10					Rain	John Smith.
Strathfield Turgiss			30.16	766.1	67.0	19.4		NW			1		7						Rev Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)			29.89	759.2	49	9.4		NW			4		5						William Lawrence.
Taunton College																			
Thurso			29.91	759.7	53	11.7		S			2		9					Rain	John Trotter.
Truro Royal Institution			30.16	766.1	60	15.6		W			2		8						W Newcombe.
Valencia Observatory			30.10	764.5	56.8	13.8		S	37	16.5			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.18	766.6	56.1	13.4		SW			2		6						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.81	757.1	48.6	9.2	93	WNW			2		10						
Fanöe			29.92	759.9	45.1	7.3	93	WNW			6		10						
Godthaab, (Greenland)			29.34	745.3	39.9	4.4		N			4		2						
Stykkisholm, (Iceland)			29.72	754.8	41.5	5.3	82	E			6		8						
Thorshavn, (Faröe)								SE			2		8						
Vestervig			29.84	757.8	46.6	8.1	91	W			6		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.04	762.9	63.5	17.5	76						2k						Normal School.
Alençon			30.21	767.4	64.4	18.0	70	S			1		9			0	0		Normal School.
Amiens			30.19	766.8	64.0	17.8	87	E			4		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.19	766.7	66.7	19.3	42	W			2		8		W	0	0		Normal School.
Besançon			30.15	765.9	68.4	20.2	24	S			3		0			0	0		Normal School.
Bourges			30.17	766.3	67.6	19.8	57	W			2		2		SW	0	0		Normal School.
Brest			30.19	766.8	59.5	15.3	78	N			1		10		N	0	0		Naval Observatory.
Caen			30.21	767.2	61.2	16.2	67	SW			2		5		SW	0	0		Normal School.
Carcassonne																			Normal School.
Chartres			30.16	766.1	66.0	18.9		WNW			2		5		NNW	0	0		Normal School.
Chaumont			30.11	764.8	67.3	19.6		W			2		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.11	764.7	62.2	16.8	52	NW			2		2		SE	0	0		Normal School.
Orleans																			National Observatory.
Paris Observatory			30.18	766.5	65.1	18.4		N			1		8		WSW	0	0		Normal School.
Parthenay			30.16	766.1	60.8	16.0	45	NW			2		5		S	0	0		Normal School.
La Roche sur Yon			30.21	767.2	58.6	14.8	55	NW			2		8		NE	0	0		Normal School.
Rouen			30.21	767.2	64.8	18.2	56	W			2		0			0	0		Normal School.
Saint Lo			30.28	769.0	59.5	15.3	74	NW			1		2		SW	0	0		Normal School.
Villefranche			30.13	765.4	73.9	23.3	39	NNE			3		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.96	633.9			50.7	10.4	38	E	9.3	4.17			8		SSW	0.094	1.4		—. Falguère.
Montsouris Observatory			30.18	766.5	65.3	18.5	44		2.3	1.05			8k		NW	0	0		Marié Davy.
Perpignan	30.09	762.0			70.7	21.5	32	NW	1.9	0.83			2			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pier e, (Martinique)																			
Tours			30.18	766.6	66.9	19.4	42	NW			1		5		WNW	0	0		C. Marquet.
Versailles, (near Paris)			30.18	766.6	67.6	19.8	40	NW			2		9			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.11	764.8	52.5	11.4	91	S	2.7	1.2			0			0	0		H. Le Lec, S. J.

Note.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			29.99	761.7	60.8	16.0	33	NW			5		10			0	0	Rain	Prof. Hoh.
Berlin			29.97	761.1	54.7	12.6	67	SW			1		8			0.047	1.2	Rain	Prof. Arndt.
Breslau			29.95	760.8	61.9	16.6	30	W			7		10			0	0		Dr. P. Neugebauer.
Carlsruhe			30.08	764.0	67.3	19.6	32	W			2		10			0	0		A. Senz.
Cassel			29.97	761.3	63.5	17.5	48	NW			9		4			0	0		Dr. H. Möhl.
Cologne			30.08	764.1	62.1	16.7	59	NW			3		4			0	0		Dr. Garthe.
Emden			30.10	764.5	53.6	12.0	65	NW			2		1			0	0		Prof. Prestel.
Frankfort on the Main			30.16	766.1	62.2	17.0	48	SW			3		10			0	0		Physical Society.
Friedrichshafen			30.09	764.4	59.9	15.5	49	S					7			0	0		M. Wilhelm.
Hamburg			29.97	761.3	43.0	8.9	82	NW			6		10			0.083	2.1		W. Reinert.
Kiel			29.93	760.2	54.1	12.3	72	NW			5		3			0.366	9.3		Prof. G. Karsten.
Königsberg			30.26	768.6	49.1	9.5	55	NE			2		9			0	0		Prof. E. Luther.
Köslin			30.05	763.3	47.7	8.7		SW			2		10			0	0		Dr. T gert.
Leipsic			29.97	761.2	56.7	13.7	70	SW			2		8			0.134	3.4		Prof. Bruhns.
Münster			30.06	763.4	59.2	15.1	60	NW			4		0			0	0		Prof. E. Heis.
Posen			29.95	760.6	53.8	12.1	53	W			6–7		10			0.024	0.6		Dr. Magener.
Strassburg, (in Alsace)			30.09	764.4	67.8	19.9	19	NW					8			0.008	0.2		Hartwig and Tülk.
Stuttgart			30.06	763.4	66.2	19.0	36	NW					10			0.016	0.4		Mr. Würth.
Thorn			29.89	759.3	57.0	13.9	49	W			4		10			0.012	0.3		Dr. Hesenbalg.
Treves, (Trier)			30.06	763.5	62.2	17.0	46	NW			6		10			0	0		Prof. Flesch.
Wustrow			29.89	759.2	47.5	8.6	83	WSW			3		3			0.016	0.4		E. F. Schütz.

Note.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.08	764.1	64.9	18.3	48	S	4.3	1.9			1			0	0		
Mondovi			30.06	763.5	61.5	16.4	47	NW			4		0			0	0		
Genoa			30.11	764.7	62.2	16.8	63	SW	4.3	1.9			0			0	0		
Pavia			30.07	763.8	65.8	18.8	35	NE			4		0			0	0		
Verona			30.01	762.3	68.9	20.5	35	W			2		0			0	0		
Padua			30.07	763.6	60.6	15.9	48	S	2.5	1.1			0			0	0		
Parma																			
Bologna			30.07	763.8	63.9	17.7	21	NE			4		0			0	0		
Livorno			30.10	764.6	57.6	14.2	74	W	5.6	2.5			0			0	0		
Urbino			30.10	764.5	54.3	12.4	50	NE			4		0			0	0		
Ancona			30.12	765.1	56.8	13.8	54	NW			2		0			0	0		
Siena			30.04	763.0	64.0	17.8	35	W	0	0			1	N		0	0		
Rome			30.08	764.0	64.4	18.0	36	WSW	4.0	2.2			0			0	0		
Naples, O.U.			30.08	763.9	66.6	19.2	31	SW			4		1	N		0	0		
Lecce			30.08	763.9	58.6	14.8	68	W	15.0	6.7			8			0	0		
Cosenza			30.06	763.5	59.4	15.2	50	NNW			2		7			0	0		
Catania, (Sicily)			30.10	764.6	61.7	16.5	54	SE			4		1			0	0		
Liposto																			
Palermo			30.01	762.3	46.2	7.9	31	NNE			4		1			0	0		
Sub-Series.																			
Naples, S. R.	29.55	750.5			63.0	17.2	44	SW			2–4					0	0		Prof. F. Brioschi.

Note.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.19	766.7	53.6	12.0		NW			2								
Groningen			30.02	762.4	54.0	12.2		NW			5								
Helder			30.11	764.8	49.1	9.5		W			3								
Utrecht			30.08	763.9	61.9	16.6	49	WNW			2		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.80	756.9	46.4	8.0	78	NW	1.3	0.6			10			0	0		
Christiania			29.75	755.6	46.4	8.0	69	NNE	7.6	3.4			10			0.090	2.3		
Tromsö			29.79	756.6	36.9	2.7	77	SE			6		10			0.256	6.5		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.78	756.4			66.2	19.0	58	N	8.7	3.9			3						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.89	759.3	60.4	15.8	33	SSW	9	4			6						Astronomical Obs.
Wilna			29.91	759.8	52.0	11.1	46	SW	8	3.5			10						Astronomical Obs.
Dorpat			29.91	759.7	39.7	4.3	63	ESE	4	2			10					Snow	Physical Cabinet.
St. Petersburg			29.89	759.2	37.8	3.2	58	W	4	2			4						Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.18	766.6	51.1	10.6	45	SSW	4	2			0						
Nikolaiev			30.12	765.1	49.8	9.9	41	NNE	8	3.5			6						
Kertch			29.95	760.6	48.0	8.9	81	NNE	20	9			6						Lagorio.
Moscow			29.96	761.0	44.1	6.7	52	SW	4	2			7						Meteorological Obs.
Lugan			29.91	759.6	49.5	9.7	46	NE	17	7.5			5						Meteorological Obs.
Archangel			29.87	758.8	35.2	1.8	58	NW	8	3.5			2						Ogorodnikof.
Tiflis			29.67	753.5	79.2	26.2	31	WSW	8	3.5			6						Physical Obs.
Astrakhan			29.88	759.0	71.8	22.1	48	Calm	0	0			0						Sebastianof.
Kasan			29.03	760.3	46.6	8.1	34	W	4	2			2						Physical Cabinet.
Orenburg			29.86	758.5	58.5	14.7	61	SW	8	3.5			8						Tschernischef.
Ekaterinburg																			Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.44	773.2	49.5	9.7	38	NE	8	3.5			0						Meteorological Obs.
Yeniseisk			30.35	770.9	39.7	4.3	54	NW	8	3.5			0						arks.
Irkutsk																			Usolzef.
Oorga			30.26	768.6	24.4	− 4.2	84	Calm	0	0			5						Mossin.
Peking, (China)			29.72	754.9	56.1	13.4	30	WNW	20	9			7						Physical Observatory
Nertchinsk			29.97	761.3	35.6	2.0	51	NW	4	2			9						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	763.1	71.4	21.9	42	E	6.0	2.7			2			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.83	757.7	39.2	4.0	87	S			2		10			0	0		
Hernosand			29.80	756.9	35.6	2.0	78	SSW			3		10			0.01	0.3		
Stockholm			29.73	755.0	35.6	2.0	89	E			5		10			0	0	Rain	
Wisby			29.80	756.8	40.3	4.6	94	SW			3		10			0.02	0.6		
Sub-Series.																			
Upsala			29.77	756.2	39.2	4.0	66	ESE			4		10						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.72	729.5			62.6	17.0	23	N			2		2			0	0		The Observatory.
Zurich	28.45	722.7			68.7	20.4	25	NW			2		3			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +5.0mm.; Thermometer, +3°.2 C.; Relative Humidity, —34 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.86	758.5	72.0	22.2	57	SW			3		5						
Constantinople			30.02	762.6	48.0	9.4	68	NNE	25	11			10		NNE	0.094	2.4		
Fao, (Persian Gulf)			29.88	759.0	78.8	26.0		SE			3		0						
Salonica					57.0	13.9		NW			1		10						
Valona			29.97	761.2	65.5	18.6		SW*			1		5						
Varna			29.90	759.4	56.8	13.8		Calm			0		8						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.94	760.5	44	6.7		Calm	0	0		0	0			0	0		
Chatham, N. B.			29.95	760.7	29	— 1.7	59	NW	8	3.6		0	0			0	0		
Charlottetown, P. E. Island			29.84	757.9	34	1.1	48	NW	16	7.2			10s			0	0		
Fort Garry, Manitoba			29.78	756.4	29	— 1.7	58	NW	14	6.3		5k	5ks	N	N	0.04	1.0		
Halifax, N. S.			29.74	755.4	39	3.9	63	W	6	2.7			8n		W	0	0		
Kingston, Ontario			29.88	758.9	43	6.1	93	E	2	0.9		0	0			0	0		
Montreal, Quebec			29.93	760.2	39	3.9	55	NE	13	5.8		0	0			0	0		
Ottawa, Ontario			29.90	759.4	41	5.0	45	N	7	3.1		0	0			0	0		
Parry Sound, Ontario			29.87	758.7	41	5.0	49	SE	5	2.2		2cs	2s	SE	SE	0	0		
Port Dover, Ontario			29.84	757.9	39	3.9	55	N	9	4.0		0	0			0	0		
Port Stanley, Ontario			29.96	761.0	42	5.6	57	NE	1	0.4		5c	0			0	0		
Quebec, Quebec			30.03	762.7	30	— 1.1	78	E	23	10.3		0	0			0	0		
Saugeen, Ontario			29.85	758.2	44	6.7	90	NE	1	0.4		5cs	0			0	0		
Stayner, Ontario			29.84	757.9	43	6.1	28	Calm	0	0		0	0			0	0		
Sydney, C. B.			29.82	757.4	33	0.6	49	W	6	2.7		Haze	3ks		W	0	0		
Toronto, Ontario			29.85	758.2	43	6.1	65	SW	1	0.4		0	0			0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.86	758.4	45	7.2	76	N	2	0.9		5cs	0	W		0	0		
Alpena, Mich.			29.76	755.9	41	5.0	73	Calm	0	0		0	Sm'e			0	0		
Atlantic City, N. J.			29.64	752.8	45	7.2	100	NE	30	13.4			10k		NE	0.09	2.3	Heavy rain	
Augusta, Ga.			29.73	755.1	59	15.0	70	NW	10	4.5		0	0			0.46	11.7		
Baltimore, Md.			29.61	752.1	49	9.4	93	NE	7	3.1			10n		NE	0.75	19.1	Light rain	
Barnegat, N. J.			29.68	753.9	42	5.6	100	NE	26	11.6			10n		NE	0.37	9.4	Heavy rain	
Benton, Montana			30.02	762.5	39	3.9	32	NE	16	7.2		5k	5ks	W		0	0	Threatening	
Bismarck, Dakota			29.84	757.9	34	1.1	69	SW	14	6.3		5cs	0	W		0	0		
Boston, Mass.			29.88	758.9	49	9.4	57	E	4	1.8		0	0			0	0		
Breckenridge, Minn.			29.88	758.9	34	1.1	80	SW	4	1.8		0	0			0	0		
Buffalo, N. Y.			29.81	757.2	41	5.0	57	NE	4	1.8		0	0			0	0		
Burlington, Vt.			29.91	759.7	41	5.0	65	S	1	0.4		0	2s			0	0		
Cairo, Ill.			29.97	761.2	51	10.6	86	Calm	0	0		0	0			0.36	9.1		
Cape Hatteras, N. C.			29.54	750.3	63	17.2	83	SW	9	4.0		5k	0	SW		0.40	10.2		
Cape Henry, Va.			29.52	749.8	60	15.6	94	NW	12	5.4			Fog			0	0	Fog	
Cape May, N. J.			29.60	751.8	46	7.8	100	NE	20	8.9			10n		NE	1.73	43.9	Light rain	
Charleston, S. C.			29.73	755.1	58	14.4	70	SW	16	7.2		2c	0	W		0	0		
Cheyenne, W. T.			29.87	758.7	41	5.0	75	W	4	1.8			10s			0.05	1.3		
Chicago, Ill.			29.84	757.9	47	8.3	41	SW	6	2.7		8ck	0			0	0		
Cincinnati, Ohio			29.86	758.4	49	9.4	50	NW	4	1.8		0	0			0	0		
Cleveland, Ohio			29.82	757.4	39.8	4.3	73	N	10	4.5		2cs	0			0	0		
Colorado Springs, Col.			29.84	757.9	47	8.3	77	S	4	1.8			10s			0	0		
Corsicana, Texas			29.98	761.5	54	12.2	86	SE	4	1.8		5cs	0	W		0	0		
Davenport, Iowa			29.86	758.4	52	11.1	72	W	4	1.8		5c	Sm'e			0	0		
Denver, Col.			29.90	759.4	43	6.1	83	N	3	1.3		2cs	0	SW		0	0		
Detroit, Mich.			29.82	757.4	44	6.7	59	Calm	0	0		8c	Sm'e	E		0	0		
Dodge City, Kansas			29.51	749.5	48	8.9	85	SE	12	5.4		5k	0	SW		0	0		
Dubuque, Iowa			29.85	758.2	54	12.2	61	W	2	0.9			10s			0	0		
Duluth, Minn.			29.68	753.9	43	6.1	42	W	10	4.5		3k	6ks	W	W	0	0		
Eastport, Me.			29.91	759.7	39	3.9	39	N	12	5.4		0	0			0	0		
Erie, Penn.			29.79	756.7	37	2.8	80	N	8	3.6		0	Haze			0	0		
Escanaba, Mich.			29.69	754.1	36	2.2	90	S	4	1.8			10s		S	0	0	Threatening	
Fort Gibson, I. T.			29.95	760.7	53	11.7	73	E	7	3.1		8cs	0	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.95	760.7	42	5.6	54	Calm	0	0		0	5s			0	0		
Galveston, Texas			30.05	762.7	66	18.9	84	S	8	3.6		0	0			0	0		
Grand Haven, Mich.			29.81	757.2	51	10.6	33	S	19	8.5		5ck	Haze	W		0	0		
Indianapolis, Ind.			29.85	758.2	49	9.4	57	N	3	1.3		2c	Sm'e			0	0		
Indianola, Texas			30.01	762.2	68	20.0	90	S	6	2.7		0	5s		S	0	0		
Jacksonville, Fla.			29.90	759.4	64	17.8	52	W	8	3.6		0	0			0	0		
Keokuk, Iowa			29.82	757.4	56	13.3	74	W	5	2.2		0	Haze			0	0		
Key West, Fla.			30.04	763.0	74.5	23.6	76	NW	15	6.7		2k	Sm'e	NW		0	0		
Kittyhawk, N. C.			29.52	749.8	62	16.7	84	SW	10	4.5		0	2s			0.50	12.7		
Knoxville, Tenn.			29.85	758.2	53	11.7	82	W	4	1.8		8ck	2s	N		1.44	36.6		
La Crosse, Wis.			29.80	756.9	50	10.0	58	W	6	2.7		2c	0	NW		0	0		
Leavenworth, Kan.			29.93	760.2	50	10.0	64	Calm	0	0		2c	Fog	NW		0	0		
Lexington, Ky.			29.85	758.2	52	11.1	66	NW	10	4.5		0	0			0	0		
Long Branch, N. J.			29.76	755.9	43	6.1	100	NE	15	6.7			10n			0.31	7.9	Light rain	
Louisville, Ky.			29.85	758.2	53	11.7	80	Calm	0	0		0	0			0.19	4.8		
Lynchburg, Va.			29.62	752.3	51	10.6	86	NW	4	1.8			10s		NW	1.04	26.4		
Malone, N. Y.																			
Marquette, Mich.			29.62	752.3	51	10.6	52	SW	8	3.6		0	0			0	0		
Memphis, Tenn.			30.04	763.0	52	11.1	86	NW	2	0.9		2c	0			0.04	1.0		
Milwaukee, Wisconsin			29.81	757.2	45	7.2	53	SW	9	4.0			10ks		W	0	0		
Mobile, Ala.			30.07	763.8	57	13.9	69	NW	6	2.7		0	0			0	0		
Montgomery, Ala.			30.01	762.2	57	13.9	75	W	10	4.5		2k	Haze	NW		0	0		
Morgantown, W. Virginia			29.73	755.1	46	7.8	96	NE	8	3.6			10n			0.05	1.3	Light rain	
Mt. Washington, N. H.			29.93	760.2	19	— 7.2	69	N	12	5.4		0	0			0	0		
Nashville, Tenn.			29.93	760.2	57	13.9	75	W	4	1.8		0	Haze			0.51	13.0		
New Haven, Conn.			29.86	758.4	42	5.6	58	NE	8	3.6			10s			0	0		
New London, Conn.			29.86	758.4	47	8.3	59	NE	8	3.6			10s			0	0		
New Orleans, La.			30.08	764.0	60	15.6	71	Calm	0	0		1cs	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			29.79	756.7	42	5.6	83	NE	20	8.9			10n			0.06	1.5	Light rain	
Norfolk, Va.			29.53	750.0	62	16.7	83	W	7	3.1		0	8s		W	0.63	16.0	Clearing	
North Platte, Neb.			29.60	751.8	44	6.7	92	NE	5	2.2			10n			2.45	61.7	Light rain	
Omaha, Neb.			29.94	760.5	49	9.4	63	Calm	0	0			10s		N	0	0		
Oswego, N. Y.			29.45	758.2	45	7.2	56	Calm	0	0		Haze	Haze			0	0		
Peck's Beach			29.52	752.3	47	8.3	100	NE	22	9.8			10n			2.21	56.1	Heavy rain	
Pembina, D. T.			29.75	755.6	31	— 0.6	68	NW	12	5.4		2k	0	NW		0.01	0.3		
Philadelphia, Penn.			29.70	754.4	41	6.7	92	E	28	12.5			10s		E	0.28	7.1		
Pike's Peak, C. T.			29.84	757.9	16	— 8.9	83	SW	34	15.2		5k	0	W		0	0		
Pittsburgh, Penn.			29.72	754.9	50	10.0	64	N	6	2.7						0	0	Dense smoke	
Port Huron, Mich.			29.83	757.7	41	5.0	73	Calm	0	0		8c	Haze			0	0		
Portland, Maine			29.93	760.2	39	3.9	73	NE	1	0.4		2c	Haze			0	0		
Portland, Or.			30.17	766.3	46	7.8	77	Calm	0	0		Haze	Haze			0	0		
Punta Rassa, Fla.			30.04	763.0	70.5	21.4	59	NW	20	8.9		8ck	Haze	W		0.61	15.5		
Rochester, N. Y.			29.84	757.9	43	6.1	75	NE	2	0.9		0	Haze			0	0		
Salt Lake City, Utah			29.90	759.4	48	8.9	21	NE	7	3.1		0	0			0	0		
Sandy Hook, N. J.			29.76	755.9	44	6.7	92	NE	24	10.7			10n		NE	0.18	4.6	Light rain	
San Diego, Cal.			29.92	760.0	57	13.9	68	SW	4	1.8			10ks		SW	0	0		
San Francisco, Cal.			29.88	758.9	53	11.7	73	SW	6	2.7			10s			0	0		
Santa Fe, N. M.			29.66	753.4	45	7.2	11	SE	8	3.6		10k	0	SW		0	0		
Savannah, Georgia			29.81	757.2	61	16.1	48	W	15	6.7		1k	0	W		0	0		
Shreveport, La.			30.06	763.5	53	11.7	86	Calm	0	0		0	0			0	0		
Springfield, Mass.			29.88	758.9	46	7.8	54	NE	4	1.8		8cs	2s	S		0	0		
St. Louis, Mo.			29.96	761.0	52	11.1	23	W	9	4.0		0	0			0	0		
St. Marks, Fla.			29.98	761.5	55	12.8	73	NW	8	3.6		0	0			0	0		
St. Paul, Minn.			29.76	755.9	45	7.2	45	W	8	3.6		2c	0	NW		0	0		
St. Paul's Island, Alaska			29.11	739.4	34	1.1	79	S	35	15.6		10ks	1s	S		0.24	6.1		
Squan Beach, N. J.			29.72	754.9	42	5.6	100	NE	20	8.9			10n			0.36	9.1	Heavy rain	
Toledo, Ohio			29.85	758.2	46	7.8	61	NE	2	0.9		2c	0	W		0	0		
Tybee Island, Ga.			29.82	757.4	59	15.0	66	W	10	4.5		2c	1k	W		0	0		
Vicksburg, Miss.			30.13	765.3	55	12.8	73	Calm	0	0			10s			0	0		
Virginia City, Mon.			29.64	752.8	33	0.6	61	S	1	0.4		0	0			0	0		
Washington, D. C.			29.61	752.1	47.5	8.6	10[illegible]	NW	12	5.4			10n		NE	0.72	18.3	Light rain	
Wilmington, N. C.			29.32	752.3	60	15.6	59	W	14	7.2		1ks	0	W		0.58	14.7		
Wood's Hole, Mass.			29.88	758.9	45	7.2	76	E	9	4.0			10s			0	0		
Wytheville, Va.			29.42	747.3	49	9.4	71	NW	8	3.6			10s			1.03	14.7		
Yankton, D. T.			29.99	761.7	48	8.9	43	NW	18	8.0			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		NE	5	2.2		2c	2ks	NE		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			29.97	761.2	78	25.6		SE				5c	2k	SE		0.10	2.5		L. V. Bigard.
Havana, Cuba, W. I.			29.79	756.7	77	25.0	81	SW	2.4	1.1		2c	0	SW		0.42	10.7		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.24	768.1	77	25.0		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.16	766.1			77	25.		E	4	1.8		2ck	5k	E		0.02	0.5	Clearing	W. S. Cameron.
Santiago de Cuba, W. I.			29.86	758.4	79	26.1	78	Calm	0	0		2ck	5n	N	SE	0	0		Robert Mason.
St. Georges, Bermudas			29.98	761.5	66.5	19.2	72	W	6.7	3.0		5ck	0	W		0	0		C. F. Allen.
Honolulu, Oahu, S. I.			30.08	764.0	64	17.8	68	NE			2	0	0			0.40	10.2		E. P. Church.
Makawao, Maui, S. I.			29.99	761.7	62	16.7	88	Calm	0	0		0	7n		NE	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.26	743.2	30.0	— 1.1	100	E	13	5.8			10s			0.35	8.9		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	66	18.9	93	SE	1.5	0.7		2c	2k	SE		0	0		C. Partridge.
St. John's, Newfoundland			29.65	753.1	30	— 1.1	79	W				5k	5s			0.12	3.0		John Delaney.
St. John's, Porto Rico, W. I.			30.08	763.9	80.6	27.0	69	S			1	3c	2s			0	0		Leon M. Acuña.
Elyria, Ohio			29.82	757.4	41	5.0	65	NE	4	1.8		0	2c			0	0		H. M. Redington.
Indianola, Iowa	29.03	737.3			48	8.9		NW					8n			0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 32° 10′, W. 70° 27′	ESE	3	29.82	757.4	69.5	20.8	92	SSW			9		10d		NE	H'vy sea.		Threatening	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 29, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.0	66.2	19.0		NE			2		2			0	0		Charuot.
Algiers			30.16	765.7	64.4	18.0	72	NE			2		0			0	0		Peter.
La Calle			30.28	769.0	68.3	20.4		W			3		1			0	0		Kuntz.
Tunis			30.27	768.8	68.2	20.1	37	N			4		3			0	0		Jacques.
Sfax			30.24	768.0	73.8	23.2		S			2		1			0	0		Chauvey.
Saida			30.08	764.1	74.7	23.7		NW			1		2			0	0		Grosjean.
Tebessa			30.19	76[illegible].7	64.2	17.9		NW			2		2			0	0		Colin.
Gerville			30.09	763.5	71.1	21.7		SE			2		5			0	0		Bernadach.
Laghouat			30.08	764.0	68.0	20.0	32	SE			3		6			0	0		Poinsignon.
Biskra			30.16	766.1	79.2	26.2		E			2		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Agram			30.02	762.5	61.3	16.3	56	NE			3		8			0.039	1.0	Rain	Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			30.00	762.0	51.4	10.8	85	NE			2		9			0.252	6.4		I. R. Observatory.
Eperies			29.97	761.1	59.0	10.0	75	Calm			0		10		S	0.156	3.95	Rain	Julius Mikolik.
Gratz			30.01	762.2	61.3	16.3	38	NW			5		5			0	0		Andreas Rospini.
Hermannstadt			29.94	760.4	51.8	11.0	63	W			4		9			0.077	1.95		Prof. Reissenberger.
Kremsmünster			30.07	763.6	57.6	14.2	42	NW			3		3			0.055	1.4		Prof. C. Wagner.
Lemberg			29.88	759.0	56.5	13.6	56	NW			4		6			0	0	Rain	Dr. T. Stanecki.
Nyiregyhaza			29.97	761.1	54.7	12.5	89	W			1		5			0	0		Habzsuda Daniel.
Pola			30.05	763.2	62.4	16.9	50	SSW			2		3ck			0	0		I. R. Hydrographic Office
Szegedin			29.91	759.6	60.8	16.0	39	NW			3		8			0	0		Karl Stancel.
Trieste			30.04	762.9	64.2	17.9	49	WNW			1		9			0.010	0.4	Rain	Prof. V. Farolfi.
Vienna			30.03	762.8	58.8	14.9	39	NNW			3		5			0	0		I. R Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Stations	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Brussels	29.93	760.1			60.4	15.8	66	W			1		5k		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the coöperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			29.93	760.2	61.5	16.4		NW	18	8.0			2			0.170	4.30		William Boswell.
Annanhill																			
Ardrossan			30.07	763.8	56	13.3		SW			2		6						William McNeil.
Armagh Observatory			30.11	764.8	59.9	15.5		SSW	6	2.7			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.10	764.5	55.8	13.2		W			5		10						John Hartnup, Jr.
Birr Castle, (Parsonstown)			30.10	764.5	60.4	15.8		SW			1		10						J. Drever, for L'd Rosse.
Bradford			30.05	763.3	58.1	14.5		W			2		7						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.06	763.5	81.8	27.7		SE			4		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.11	764.8	61.0	16.1		W			1		10						H. Todd.
Cape Town, (Cape Colony)			30.00	762.0	66.0	18.9		NW			1		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	30.03	762.7			68.3	20.2	62	S	16	7.2			1						The Staff, for E. J. Stone.
Cardington			30.16	766.1	64.0	17.8		NW					6						John McLaren.
Carlisle			30.07	763.8	62.1	16.7		W					3			0.01	0.3		T. Bell, for J. Cartmell.
Chatham, School M. E.			30.14	765.5	59.2	15.1		NW			2		4						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.89	759.2	83.5	28.6		SW			4		6						Sgt. W. F. Hopkins
Dartmoor			29.25	768.3	53.9	12.2		W			1		5						R. E. Power.
Donaghadee			30.07	763.8	60	15.6		W			3		6						J. Mac Gowan, Jr.
Dover			30.15	765.8	55	12.8		W			3		10					Fog	J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.10	764.5	60.7	15.9		WNW	6.8	3.0			10						Thomas Mackereth.
Falmouth Observatory			30.20	767.1	56.1	13.4		SSE	8	3.6			9						The Staff.
Fort Napier, (Natal)			29.84	757.9	73.5	23.1		E			3		8						Pvt. G. Salmon.
Freetown, (Sierra Leone)																			
Galway, Queen's College			30.03	762.7	60	15.6		W			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.12	765.0	67.5	19.7		ENE			4		5						Sergt. E. G. Baker.
Glasgow Observatory			30.03	762.7	55.1	12.8		NW			2		10						James Gray.
Great Yarmouth			30.10	764.5	61	16.1		W			2		8						G. T. Watson.
Greenwich Royal Obs.			30.15	765.8	61.8	16.1		NW			1		6						The Staff, for G. B. Airy.
Guernsey			30.19	766.8	55	12.8		ENE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.04	763.0	56.5	13.6		WNW					10						F. J. Rice, for L. J. Crossley.
Halifax, (Nova Scotia)			29.90	759.4	39.4	4.1		NW			1		5						Corp'l J. Y. Thompson.
Helston			30.16	766.1	60	15.6		SW			3		8						Dr. W. B. Moyle.
Holyhead			30.14	765.5	54	12.2		SW			4		4						John Tilston.
Hull Park																			
Kew Observatory			30.15	765.8	58.9	14.9		NW	12	5.4			4						The Staff.
Kingstown			30.13	765.3	57	13.9		SE			1		10						George Mitchell.
Lampeter																			
Leicester Museum			30.14	765.5	59.0	15.0		W			4		5						William J. Harrison
Llandudno			30.12	765.0	58.0	14.4		W					10						Dr. James Nicol.
Malta, (Mediterranean)			30.08	764.0	64.4	18.0		SW			1		4k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			29.96	761.0	60	15.6		W			2		5						William D. Penny.
Nassau, (Bahamas)			30.12	765.0	77.1	25.1		W			1		3						Surg. Maj. J. Jameson.
North Shields			30.02	762.5	59	15.0		WNW			4		3						John Wm. Irvine.
Nottingham			30.12	765.0	65.8	18.8		SW			3		7k		NNW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.11	764.8	58.9	14.9		WSW			3		9						Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.13	765.3	61	16.1		W			2		8						J. Lucas, for R. Main.
Plymouth			30.20	767.1	59	15.0		SW			1		0						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.14	765.5	55	12.8		SW			3		8						W. Kennedy.
Saint Ann's Head			30.18	766.6	54	12.2		Calm			0		10						John C. Walker.
Saint Helier, (Jersey)			30.08	764.0	57.8	14.3		N			1		5						A. P. Amy.
Sandwick Manse (Orkneys)			29.88	758.9	50.4	10.2		W	34	15.2			5						Rev. C. Clouston.
Scarborough			30.03	762.7	56.7	13.7		W			3		5						F. Shaw.
Scutari, (Turkey)			30.00	762.0	55.2	12.9		NNE			2		7					Light haze	Sergt. W. H. Lyne.
Sheffield			30.08	764.0	62.7	17.1		W			3		6			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.05	763.3	60.0	15.6		SW			6		4			0	0		Rev. Francis Redford.
Somerleyton, (Lowestoft)			30.09	764.3	61.7	16.5		WSW			1		9						Rev. C. J. Steward.
Stonyhurst Observatory			30.09	764.3	54.6	12.6		W			3		10					Threatening	The Staff.
Stornoway, Lewis C. (Hebr.)			29.96	761.0	57	13.9		W			5		5						John Smith.
Strathfield Turgiss			30.17	766.3	59.6	15.3		NW			1		5						Rev. Charles H. Griffith
Streatley Vicarage																			Rev. John Slatter.
Sumburgh Head, (Shetland)			29.69	754.1	47	8.3		NW			6		9						William Lawrence.
Taunton College																			
Thurso			29.90	759.4	54	12.2		WNW			6		5						John Trotter.
Truro, Royal Institution			30.16	766.1	61	16.1		E			2		5						W. Newcombe.
Valencia Observatory			30.08	764.0	56.7	13.7		SSE	20	8.9			10						The Staff.
Wick																			
Wisbeach																			
Worthing			30.16	766.1	58.8	14.9		SW			2		4						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the coöperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.93	760.2	46.6	8.1	82	SSW			1		10					Mist	
Fanöe			29.91	759.8	48.7	9.3	66	WSW			2		10					Rain	
Godthaab, (Greenland)			29.51	749.6	37.5	3.3		Calm			0		2					Mist	
Stykkisholm, (Iceland)			29.81	757.2	44.6	7.0	98	N			2		8						
Thorshavn, (Faröe)			29.54	758.0	44.6	7.0	91	NE			4		10						
Vestervig			29.85	758.1	45.0	7.2	99	SSE			4		10					Rain	

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			29.63	752.5	59.2	15.1	62						5c						Normal School.
Alençon			30.15	765.9	68.0	20.0	44	SE			1		2			0	0		Normal School.
Amiens			30.18	766.5	58.6	14.8	72	W			4		10			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.17	766.4	62.4	16.9	39	W			1		2		W	0	0		Normal School.
Besançon			30.13	765.3	69.8	21.0	37	ENE			3		2		SW	0	0		Normal School.
Bourges			30.13	765.4	67.0	19.8	57	NW			2		2		N	0	0		Normal School.
Brest			30.09	764.4	67.5	19.7	58	SSW			1		0			0	0		Naval Observatory.
Caen			30.19	766.9	58.1	14.5	61	N			2		2		SW	0	0		Normal School.
Carcassonne																			
Chartres			30.15	765.7	65.5	18.6		NW			2		2		NW	0	0		Normal School.
Chaumont			30.10	764.5	68.9	20.5		NW			2		10		NW	0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.09	764.4	65.1	18.4	39	NNW			2		1		SSE	0	0		Normal School.
Orleans																			Normal School.
Paris Observatory			30.16	766.0	66.0	18.9		NW			1		2		W	0	0		National Observatory.
Parthenay			30.10	764.0	64.4	18.0	34	NE			2		0			0	0		Normal School.
La Roche sur Yon			30.13	765.4	61.2	16.2	48	E			1		2		S	0	0		Normal School.
Rouen			30.17	766.3	67.8	19.9	40	W			2		2		W	0	0		Normal School.
Saint Lo			30.18	766.6	63.9	17.7	50	NW			1		2		SW	0	0		Normal School.
Villefranche			30.08	764.0	73.6	23.1	39	ENE			6		0			0	0		Normal School.

FRENCH SUB-SERIES.

Gorée, (Senegambia)					57.4	14.1	39	SE	9.3	4.17			2		SSW	0	0		Frère Pascall.
Mont-Louis	24.96	634.0			68.4	20.2	40	W	6.5	2.89			2k		W	0	0		—. Falguère.
Montsouris Observatory			30.15	765.8	76.3	24.6	31	NE	3.6	1.67			2			0	0		Marié Davy.
Perpignan	29.93	760.2																	Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours																			C. Marquet.
Versailles, (near Paris)			30.16	766.0	66.9	19.4	43	NW			1		5			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.17	766.2	56.1	13.4	52	NNW	5.4	2.4			7ks			0	0	Mist	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Bamberg			30.02	762.4	59.0	15.0	46	W			3		8			0.008	0.2		Prof. Hoh.
Berlin			30.06	763.4	56.5	13.6	58	SW			2		8			0.240	6.1	Rain	Prof. Arndt.
Breslau			30.10	764.5	47.3	8.5	72	NW			3		10			0.035	0.9		Dr. P. Neugebauer.
Carlsruhe			30.13	765.3	64.2	17.9	45	SW			1		9			0.079	2.0		A. Senz.
Cassel			30.02	762.6	60.3	15.7	81	SW			2		8			0	0		Dr. H. Möhl.
Cologne			30.16	766.1	64.2	17.9	65	W			4		8			0	0		Dr. Garthe.
Emden			30.07	763.6	61.2	16.2	53	NW			2		5			0	0		Prof. Prestel.
Frankfort on the Main			30.23	767.7	64.6	18.1	44	W			1		7			0	0		Physical Society.
Friedrichshafen			30.17	766.2	57.2	14.0	78						6			0	0		M. Wilhelm.
Hamburg			30.06	763.4	50.5	10.3	87	SW			4		10			0.016	0.4		W. Reimert.
Kiel			30.04	762.9	51.4	10.8	89	SW			3		10			0.020	0.5		Prof. G. Karsten.
Königsberg			29.94	760.5	44.4	6.9	85	NW			2		9			0.008	0.2		Prof. E. Luther.
Köslin			30.20	767.0	45.5	7.5		NW			4		8			0	0		Dr. T gert.
Leipsic			30.11	764.8	55.9	13.3	47	W			2		9			0	0		Prof. Bruhns.
Münster			30.01	762.2	63.5	17.5	71	SW			1		3			0	0		Prof. E. Heis.
Posen			30.06	763.5	48.2	9.0	67	NW			6–7		10			0	0		Dr. Magener.
Strassburg, (in Alsace)			30.14	765.5	66.0	18.9	41	E					9			0	0		Hartwig and Tülk.
Stuttgart			30.10	764.5	62.1	16.7	46	NW					5			0.102	2.6		Mr. Würth.
Thorn			29.95	760.7	50.0	10.0	87	W			4		9			0.130	3.3		Dr. Hesenbalg.
Treves, (Trier)			30.05	763.2	63.0	17.2	49	SE			2		2			0	0		Prof. Flesch.
Wustrow			30.02	762.5	47.3	8.5	88	WSW			2		10			0.016	0.4		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Moncalieri			30.02	762.4	70.2	21.2	32	WSW	4.9	2.2			1			0	0		
Mondovi			30.06	763.4	67.3	19.6	32	NNE			4		1	NNE		0	0		
Genoa			30.05	763.2	63.1	17.3	65	SSW	3.8	1.7			0			0	0		
Pavia			30.00	762.1	68.7	20.4	39	NE			4		1	NE		0	0		
Verona			30.00	761.9	71.6	22.0	32	E			1		0			0	0		
Padua			30.02	762.4	65.7	18.7	45	N	4.3	1.9			2			0	0		
Parma																			
Bologna			30.00	761.9	66.6	19.2	22	SW			4		2			0	0		
Livorno			30.06	763.5	63.7	17.6	63	SW	3.8	1.7			4			0	0		
Urbino			30.06	763.5	60.6	15.9	84	NE			1		1			0	0		
Ancona			30.04	763.1	63.0	17.2	56	SE			1		0			0	0		
Siena			30.00	762.0	66.4	19.1	53	NW	0	0			3	NW		0	0		
Rome			30.06	763.4	65.7	18.7	59	SW	6.3	2.8			3			0	0		
Naples, O. U.			30.08	764.1	56.1	13.4	59	SSW			2		5	NE		0	0		
Lecce			30.08	764.0	59.0	15.0	57	NW	11.2	5.0			1			0	0		
Cosenza			30.05	763.3	64.4	18.0	43	WNW			2		8			0	0		
Catania, (Sicily)			30.06	764.5	62.1	16.7	56	SE			4		0			0	0		
Liposto																			
Palermo			30.03	762.8	61.2	16.2	50	NNE			2		6			0	0		
Sub-Series.																			
Naples, S. R.	29.56	750.7			58.8	14.9	69	WNW			2–4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.17	766.3	50.9	10.5		WNW			3								
Groningen			29.98	761.5	59.4	15.2		NW			4								
Helder			30.07	763.8	53.6	12.0		SW			2								
Utrecht			30.04	763.1	64.2	17.9	62	W			3		2						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Bergen			29.69	754.1	46.4	8.0	82	S	14.8	6.6			10			0	0	Rain	
Christiania			29.87	758.8	37.8	3.2	92	NE	4.9	2.4			10			0	0	Rain	
Tromsö			29.77	756.2	34.9	1.6	96	SE			7		10			0.256	6.5		

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Lisbon	29.80	756.8			64.9	18.3	65	SW	7.4	3.3			9						

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Warsaw			29.94	760.4	53.8	12.1	66	W	4	2			10						Astronomical Obs.
Wilna			29.86	758.4	52.9	11.6	58	SSW	4	2			10						Astronomical Obs.
Dorpat			29.80	756.8	41.4	5.1	90	WSW	4	2			10					Rain	Physical Cabinet.
St. Petersburg			29.84	758.1	36.1	2.3	87	E	11	5			10					Rain & snow	Central Physical Obs.
Kuopio																			Physical Cabinet.
Kieff			30.00	761.9	52.9	11.6	45	SE	9	4			2						
Nikolaiev			30.02	762.5	54.7	12.9	39	N	4	2			7						
Kertch			29.90	759.4	46.9	8.3	87	NNE	17	7.5			10						Lagorio.
Moscow			30.04	762.9	52.2	11.2	46	SW	8	3.5			0						Meteorological Obs.
Lugan			29.88	759.1	46.4	8.0	67	ENE	13	6			10						Meteorological Obs.
Archangel			30.17	766.2	41.7	5.4	72	SE	4	2			10						Ogorodnikof.
Tiflis			29.67	753.6	75.7	24.3	42	E	8	3.5			7						Physical Obs.
Astrakhan			29.87	758.8	70.3	21.3	45	ENE	13	6			9						Sebastianof.
Kasan			30.13	765.3	49.3	9.6	34	W	4	2			6						Physical Cabinet.
Orenburg			30.05	763.2	58.3	14.6	30	SE	8	3.5			3						Tschernischef.
Ekaterinburg			30.06	763.5	48.7	9.3	46	W	13	6			0						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.07	763.6	56.5	13.6	41	Calm		0			3						Meteorological Obs.
Yeniseisk			29.86	758.5	47.1	8.4	51	SE	13	6			10						arks.
Irkutsk																			Usolzef.
Oorga			30.25	768.4	32.2	0.1	56	NW	8	3.5			4						Mossin.
Peking, (China)			30.13	765.2	52.9	11.6	28	NW	10	4.5			1						Physical Observatory
Nertchinsk			30.05	763.2	34.3	1.3	65	Calm	0	0			10						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Madrid			30.04	763.0	75.2	24.0	41	SE	6.0	2.7			1			0	0		Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.2	37.4	3.0	62	ESE			2		2			0	0		
Hernosand			29.97	761.1	43.9	6.6	57	E			2		2			0	0		
Stockholm			29.89	759 1	42.4	5.8	36	NNE			2		8			0	0		
Wisby			29.93	760.2	36.7	2.6	82	NNE			3		6			0	0		
Sub-Series.																			
Upsala			29.92	760.0	43.5	6.4	46	N			1		5						Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Geneva	28.69	728.8			63.0	17.2	41	N			2		0			0	0		The Observatory.
Zurich	28.50	723.9			61.2	16.3	57	SW			1		7			0.028	0.7		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +4.4mm.; Thermometer, +3°.2 C.; Relative Humidity, —16 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Beirut, (Syria)			29.89	759.2	65.3	18.5	70	SW			4		5					Rain	
Constantinople			30.02	762.4	59.4	10.2	61	N	16	7			8		N	0	0		
Fao, (Persian Gulf)			29.88	759.0	78.8	26.0		SE			3		0						
Salonica					64.2	17.9		NW			2		5						
Valona			29.98	761.6	62.6	17.0		W			1		5						
Varna			30.04	763.0	59.0	15.0		N			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Brockville, Ontario			29.90	759.4	44	6.7		Calm	0	0		5c	0	NE		0	0		
Chatham, N. B.			29.94	760.5	34	1.1	56	Calm	0	0		10ck	Haze			0	0		
Charlottetown, P. E. Island			29.95	760.7	33	0.6	82	SW	3	1.3		5c	0			0	0		
Fort Garry, Manitoba			29.86	759 2	17	— 8.3	92	N	7	3.1		2k	5n	W	W	0.09	2.3		
Halifax, N. S.			29.82	757.4	37	2.8	46	E	2	0.9		5cs	0	E		0	0		
Kingston, Ontario			29.89	759 2	42	5.6	76	S	1	0.4		2c	0			0	0		
Montreal, Quebec			29.86	758.4	40	4.4	56	SE	1	0.4		2c	Sm'e	NW		0	0		
Ottawa, Ontario			29.80	756.9	37	2.8	58	E	5	2.2		5ck	2n	E	E	0	0		
Parry Sound, Ontario			29.82	757.4	39	3.9	56	NE	12	5.4		2cs	5s	NE	NE	0	0		
Port Dover, Ontario			29.83	757.7	42	5.6	83	Calm	0	0		10k	0	W		0	0		
Port Stanley, Ontario			29.83	757.7	38	3.3	85	NE	1	0.4			Fog			0	0		
Quebec, Quebec			29.91	759.7	36	2.2	71	NE				0	0			0	0		
Saugeen, Ontario			29.83	757.7	39	3.9	64	Calm	0	0			10s			0	0		
Stayner, Ontario			29.83	757.7	41	5.0	61	NW	3	1.3		5ck	0	W		0	0		
Sydney, C. B.			29.91	759.7	40	4.4	47	NW	1	0.4		0	0			0	0		
Toronto, Ontario			29.80	756.9	45	7.2	67	N	3	1.3		5ck	Haze	W		0	0		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.93	760.2	50	10.0	44	S	12	5.4		0	0			0	0		
Alpena, Mich.			29.84	757.9	35	1.7	69	Calm	0	0			10s		NW	0	0		
Atlantic City, N. J.			30.00	762.0	47	8.3	58	NE	5	2.2		0	0			2.15	54.6		
Augusta, Ga.			30.06	763.5	58	14.4	73	Calm	0	0		0	0			0	0		
Baltimore, Md.			30.01	762.2	48	8.9	77	Calm	0	0		0	Sm'e			1.90	48.3		
Barnegat, N. J.			29.99	761.7	45	7.2	85	N	3	1.3		0	0			1.33	33.8		
Benton, Montana			30.06	763.5	31	— 0.6	89	S	2	0.9			10s			0.02	0.5		
Bismarck, Dakota			29.92	760.0	22	— 5.6	72	N	5	2.2			10n			0.10	2.5	Light snow	
Boston, Mass.			29.96	761.0	46	7.8	54	E	5	2.2		0	Haze			0	0		
Breckenridge, Minn.			29.87	758.7	29	— 1.7	79	N	16	7.6			10s			0.01	0.3		
Buffalo, N. Y.			29.80	756.9	43	6.1	51	SW	4	1.8		1cs	0	W		0	0		
Burlington, Vt.			29.86	758.4	48	8.9	70	S	14	6.3		0	2s			0	0		
Cairo, Ill.			29.78	756.4	58	14.4	75	S	8	3.6			10n		W	0.11	2.8	Light rain	
Cape Hatteras, N. C.			30.03	762.7	52	11.1	60	N	16	7.2		5c	0	W		0	0		
Cape Henry, Va.			30.06	763.5	52	11.1	66	Calm	0	0		5c	Haze			0	0		
Cape May, N. J.			30.00	762.0	46	7.8	69	N	4	1.8		0	0			0.72	18.3		
Charleston, S. C.			30.09	764.3	61.5	16.4	76	NW	4	1.8		0	Haze			0	0		
Cheyenne, W. T.			29.89	759.2	33	0.6	79	SW	12	5.4		0	0			0.01	0.3		
Chicago, Ill.			29.60	751.8	40	4.4	91	N	14	6.3			10n			0.02	0.5	Light rain	
Cincinnati, Ohio			29.78	756.4	56	13.3	75	SE	8	3.6			10s			0	0		
Cleveland, Ohio			29.76	755.9	49.8	9.9	54	SE	7	3.1			10s			0	0		
Colorado Springs, Col.			29.92	760.0	40	4.4	73	N	4	1.8		5k	0	S		0	0		
Corsicana, Texas			29.85	758.2	66	18.9	90	S	10	4.5			10s		S	0	0		
Davenport, Iowa			29.67	753.6	43	6.1	84	NE	4	1.8			10n			0.59	15.0	Light rain	
Denver, Col.			29.96	761.0	36	2.2	80	Calm	0	0		0	0			0.27	6.9		
Detroit, Mich.			29.77	756.1	42	5.6	79	NE	9	4.0			10s		S	0	0	Threatening	
Dodge City, Kansas			29.67	753.6	44	4.4	84	N	12	5.4		0	0			0	0		
Dubuque, Iowa			29.79	756.7	39	3.9	91	NW	6	2.7			10ks			0.67	17.0	Light rain	
Duluth, Minn.			29.69	754.1	38	3.3	62	Calm	0	0		6ck	2ks			0	0		
Eastport, Me.			30.03	762.7	39	3.9	47	N	6	2.7		2c	0	NW		0	0		
Erie, Penn.			29.76	755.9	54	12.2	49	S	8	3.6		9c	Haze			0	0		
Escanaba, Mich.			29.81	757.2	35	1.7	80	Calm	0	0			10s			0.06	1.5		
Fort Gibson, I. T.			29.79	756.7	66	18.9	68	NW	6	2.7		8k	0	NW		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.90	759.4	36	2.2	80	NW	10	4.5			8s		NW	0.30	7.6		
Galveston, Texas			29.95	760.7	69	20.6	90	S	8	3.6			10s		S	0	0		
Grand Haven, Mich.			29.72	754.9	42	5.6	91	E	11	4.9			10n		E	0.23	5.8	Light rian	
Indianapolis, Ind.			29.67	753.6	57	13.9	57	S	0	4.0			10n		S	0	0	Threatening	
Indianola, Texas			29.91	759.7	71	21.7	95	S	12	5.4		Haze	Haze			0	0		
Jacksonville, Fla.			30.08	764.0	68	20.0	60	W	4	1.8		0	0			0	0		
Keokuk, Iowa			29.63	752.6	43	6.1	91	N	20	8.9			10n		N	0.50	12.7	Light rain	
Key West, Fla.			30.12	765.0	70.8	21.6	62	N	11	4.9		0	Haze			0	0		
Kittyhawk, N. C.			30.06	763.5	47	8.3	70	NE	16	7.2		5c	0			0	0		
Knoxville, Tenn.			29.97	761.2	50	10.0	93	Calm	0	0		1cs	Haze			0	0		
La Crosse, Wis.			29.72	754.9	49	9.4	71	SW	12	5.0			10s		SW	0	0		
Leavenworth, Kan.			29.86	758.4	44	6.7	75	NW	15	6.7		0	0			0.41	10.4		
Lexington, Ky.			29.85	758.2	55	12.8	68	S	16	7.2		10c	0	SW		0	0		
Long Branch, N. J.			30.00	762.0	44	6.7	60	NE	4	1.8		0	0			0.37	9.4		
Louisville, Ky.			29.79	756.7	55	12.8	68	E	8	3.6			10s			0	0		
Lynchburg, Va.			30.04	763.0	47	8.3	85	NE	1	0.4			Fog			0.13	3.3	Fog	
Malone, N. Y.																			
Marquette, Mich.			29.78	756.4	39	3.9	55	S	4	1.8			10s		S	0	0		
Memphis, Tenn.			29.86	758.4	62	16.7	66	SW	14	6.3		0	8ks		SW	0	0		
Milwaukee, Wisconsin			29.73	755.1	39	3.9	81	NE	9	4.0			10n			0.43	10.9	Heavy rain	
Mobile, Ala.			30.06	763.5	64	17.8	83	Calm	0	0		2c	0			0	0		
Montgomery, Ala.			30.07	763.8	59	15.0	76	S	1	0.4		2c	Haze			0	0		
Morgantown, W. Virginia			29.86	758.4	53	11.7	79	SE	1	0.4		8c	Haze	SW		0	0		
Mt. Washington, N. H.			29.96	761.0	23	— 5.0	73	N	15	6.7		0	Haze			0	0		
Nashville, Tenn.			29.85	758.2	62	16.7	61	SE	11	4.9		8k	0	SW		0	0		
New Haven, Conn.			30.00	762.0	45	7.2	39	NNE	11	4.9		0	0			0.03	0.8		
New London, Conn.			29.99	761.7	50	10.0	45	N	3	1.3		0	0			0	0		
New Orleans, La.			30.04	763.0	62	16.7	83	S	1	0.4		1cs	Haze			0	0		
Newport, R. I.																			
New York, N. Y.			30.02	762.5	46	7.8	34	E	8	3.6		0	0			0.20	5.1		
Norfolk, Va.			30.06	763.5	51	10.6	27	Calm	0	0		2c	Haze			0.01	0.3		
North Platte, Neb.			29.56	750.8	39	3.9	82	NW	4	1.8		0	0			0.29	7.4		
Omaha, Neb.			29.85	758.2	41	5.0	91	NW	6	2.7		0	2s			0.61	15.5		
Oswego, N. Y.			29.86	758.4	47.2	8.4	64	SSE	8	3.6			Haze			0	0		
Peck's Beach			30.01	762.2	48	8.9	63	NE	4	1.8		0	0			1.50	38.1		
Pembina, D. T.			29.81	757.2	22	— 5.6	72	NW	20	8.9		2k	0	NW		0	0		
Philadelphia, Penn.			30.00	762.0	48	8.9	62	E	4	1.8		0	0			0.30	7.6		
Pike's Peak, C. T.			29.83	757.7	14	—10.0	82	W	54	24.1		0	0			0	0		
Pittsburgh, Penn.			29.84	757.9	50	10.0	64	S	7	3.1		0	Haze			0	0		
Port Huron, Mich.			29.83	757.7	38	3.3	63	N	9	4.0			10s			0	0		
Portland, Maine			29.98	761.5	41	5.0	57	E	3	1.3		Haze	0			0	0		
Portland, Or.			30.01	762.2	51	10.6	79	Calm	0	0		2ck	Haze			0	0		
Punta Rassa, Fla.			30.15	765.8	66.9	21.1	74	N	4	1.8		Haze	Sm'e			0	0		
Rochester, N. Y.			29.80	756.9	51	10.6	59	S	8	3.6		0	Haze			0	0		
Salt Lake City, Utah			29.90	759.4	47	8.2	34	E	2	0.9		0	5s			0	0		
Sandy Hook, N. J.			29.99	761.7	44	6.7	52	NE	8	3.6		0	Haze			0.30	7.6		
San Diego, Cal.			29.94	760.5	56	13.3	73	S	4	1.8			10n			0.01	0.3		
San Francisco, Cal.			29.86	758.4	54	12.2	80	S	8	3.6			10s			0	0		
Santa Fe, N. M.			29.70	754.4	47	8.3	48	E	12	5.4		0	0			0	0		
Savannah, Georgia			30.08	764.0	67	19.4	56	E	2	0.9		0	Sm'e			0	0		
Shreveport, La.			29.94	760.5	63	17.2	83		4	1.8			10s		SW	0	0		
Springfield, Mass.			29.99	761.7	47	8.3	40	SE	4	1.8		0	Haze			0	0		
St. Louis, Mo.			29.60	751.8	58	24.4	75	SW	12	5.4		2c	0	S		0.18	4.6		
St. Marks, Fla.			30.08	764.0	59	15.0	81	Calm	0	0		0	0			0	0		
St. Paul, Minn.			29.67	753.6	44	6.7	51	SW	1	0.4		8c	0	W		0	0		
St. Paul's Island, Alaska			29.36	745.6	36	2.2	90	SE	5	2.2		1ck	Fog			0.01	0.3		
Squan Beach, N. J.			29.99	761.7	44	6.7	54	N	5	2.2		0	Haze			1.20	30.5		
Toledo, Ohio			29.76	755.9	48	8.9	62	NE	12	5.4			10s		S	0	0	Threatening	
Tybee Island, Ga.			30.08	764.0	69	20.6	71	Calm	0	0		0	0			0	0		
Vicksburg, Miss.																			
Virginia City, Mon.			29.65	753.1	38	3.8	63	SW	4	1.8		0	2s			0	0		
Washington, D. C.			30.3	762.7	47	8.3	77	S	2	0.9		Haze	Haze			0.24	6.1		
Wilmington, N. C.			30.10	764.5	54	12.2	67	NE	4	1.8		8c	0	W		0.01	0.3		
Wood's Hole, Mass.			29.95	760.7	50	10.0	44	NE	4	1.8		0	0			0	0		
Wytheville, Va.			29.77	756.1	47	8.3	69	Calm	0	0		0	Sm'e			0	0		
Yankton, D. T.			29.88	759.9	39	3.9	82	SW	2	0.9			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.	.....	.....	30.11	764 8	80	26.7	.....	E	4	1.8	.....	5ck	0	E	.....	0	0	.....	E. Racker.
Pointe-à Pitre, G'd'loupe, do	.....	.....	30.05	763.3	78	25.6	.....	E	.....	.....	.....	5c	5ks	E	.....	0	0	.....	L. V. Bigard.
Havana, Cuba, W. I.	.....	.....	29.86	758.4	75	23.9	69	NE	3.6	1.6	.....	0	0	.....	.....	0	0	.....	Charles Hasselbrink.
Kingston, Jamaica, W. I.	.....	.....	30.27	768.8	79	26.1	.....	Calm	0	0	.....	2c	0	SE	.....	0	0	.....	James Gall.
St. Thomas, St. T., W. I.	30.27	768.8	.....	.....	77	25.0	.....	E	12	5.4	.....	2ck	5k	E	.....	0.050	1.27	.....	W. S. Cameron.
Santiago de Cuba, W. I.	.....	.....	29.88	758.9	78	25.6	78	Calm	0	0	.....	5ck	5ks	.....	.....	0	0	.....	Robert Mason.
St. Georges, Bermudas	.....	.....	29.71	754.6	68	20.0	84	SW	13	5.8	.....	0	0	.....	.....	1.500	38.10	.....	C. F. Allen.
Honolulu, Oahu, S. I.	.....	.....	30.09	764.3	62	16.7	73	NE	.....	.....	2	.....	.....	.....	.....	0.54	13.7	.....	E. P. Church.
Makawao, Maui, S. I.	.....	.....	29.96	761.0	62.5	16.9	94	Calm	0	0	.....	2ck	2n	.....	.....	0.26	6.6	.....	F. L. Clarke.
Cumberland, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Chippewyan, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. McPherson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Ft. Simpson, B. A.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
York Factory, B. A.	.....	.....	29.49	749.0	15.5	− 9.2	100	S	10	4.5	.....	.....	10s	.....	.....	0.02	0.5	.....	J. Fortescue.
Clifton, Jamaica, W. I.	.....	.....	30.08	764.0	66	18.9	93	SE	2.0	0.9	.....	0	2k	.....	.....	0	0	.....	C. Partridge.
St. John's, Newfoundland	.....	.....	29.86	758.4	42	5.6	85	NW	.....	.....	.....	5k	5s	.....	.....	0.10	2.5	.....	John Delaney.
St. John's, Porto Rico, W. I.	.....	.....	30.11	764.7	79.0	26.1	73	SE	.....	.....	1	3cs	0	.....	.....	0	0	.....	Leon M. Acuña.
Elyria, Ohio	.....	.....	29.75	755.6	49	9.4	58	S	4	1.8	.....	.....	10s	.....	.....	0	0	.....	H. M. Redington.
Indianola, Iowa	28.97	735.8	.....	.....	41	5.0	.....	NW	.....	.....	.....	.....	10n	.....	.....	0.40	10.2	Rain	G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller, N. 31° 20′, W. 68° 05′	SE	6	29.84	757.9	69	20.6	90	WNW	.....	.....	7.5	..c	..k	WNW	ESE	H'vy sea.	.....	Fair	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assg^d.,) Chief Signal Officer, U. S. A.

BULLETIN

OF INTERNATIONAL METEOROLOGICAL OBSERVATIONS,

TAKEN SIMULTANEOUSLY ON APRIL 30, 1875.

7:35 A. M. WASHINGTON mean time.
0:6 P. M. LISBON mean time.
0:28 P. M. MADRID mean time.
0:43 P. M. GREENWICH mean time.
0:53 P. M. PARIS mean time.
1:1 P. M. BRUSSELS mean time.
1:4 P. M. UTRECHT mean time.
1:13 P. M. BERNE mean time.
1:26 P. M. CHRISTIANIA mean time.
1:33 P. M. COPENHAGEN mean time.
1:33 P. M. ROME mean time.
1:37 P. M. BERLIN mean time.
1:49 P. M. VIENNA mean time.
1:55 P. M. STOCKHOLM, mean time.
2:18 P M. ATHENS mean time.
2:39 P. M. CONSTANTINOPLE mean time.
2:44 P. M. ST. PETERSBURG mean time.

ALGERIAN SERIES.

Furnished by the coöperation of M. le Général Farre, Commandant Supérieur du Génie en Algérie.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rainfall in 24 hours. Inches.	Rainfall in 24 hours. Millimeters.	Weather.	Observer.
Nemours			30.12	765.1	66.2	19.0		NNE			2		6			0.472	12.0		Charnot.
Algiers			30.09	764.4	65.8	18.8	66	N			2		2			0	0		Peter.
La Calle			30.24	768.0	64.2	17.9		E			2		1			0	0		Kuntz.
Tunis			30.30	769.5	71.2	21.8	44	E			3		0			0	0		Jacques.
Sfax			30.24	768.2	71.1	21.7		S			3		1			0	0		Chauvey.
Saida			30.08	764.0	79.0	26.1		WSW			1		2			0.158	4.0		Grosjean.
Tebessa			30.20	767.1	69.8	21.0		NNE			2		9			0	0		Colin.
Gerlville			30.11	764.7	70.2	21.2		SE			2		9			0.039	1.0		Bernadach.
Laghouat			30.13	765.3	72.5	22.5	34	S			2		1			0	0		Poinsignon.
Biskra			30.21	767.2	77.5	25.3		E			2		2			0	0		Coulon.

AUSTRIAN SERIES.

Furnished by the coöperation of Professor Carl Jelinek, Director of the Imperial and Royal Central Meteorological Institute at Vienna.

Agram			29.99	761.8	68.4	20.2	38	NE			2		3			0	0		Prof. Ivan Stozir.
Buda-Pesth																			I. R. Cen. M. I., Hungary
Cracow			29.91	759.8	49.6	9.8	87	W			3		10			0.114	2.9		I. R. Observatory.
Eperies			29.86	758.4	55.0	12.8	61	Calm			0		10			0.094	2.40	Rain	Julius Mikolik.
Gratz			29.97	761.3	66.2	19.0	59	SSW			2		8			0	0		Andreas Rospini.
Hermannstadt			29.90	759.4	59.4	15.2	41	W			3		3			0	0		Prof. Reissenberger.
Kremsmünster			29.97	761.1	61.5	16.4	53	W			3		7			0.102	2.6		Prof. C. Wagner.
Lemberg			29.85	758.1	53.8	12.1	53	SW			3		10			0.039	1.0	Rain	Dr. T. Stanecki.
Nyiregyhaza			29.95	763.8	61.2	16.2	47	W			3		6			Blank	Blank		Habzsuda Daniel.
Pola			30.08	763.9	63.1	17.3	41	SE			2		10			0	0		I. R. Hydrographic Office
Szegedin			29.96	761.0	60.8	16.0	45	W			2		8			0	0		Karl Stancel.
Trieste			30.06	763.5	62.1	16.7	56	NW			1		7			0	0		Prof. V. Farolfi.
Vienna			29.93	760.3	59.4	15.2	75	S			1		10			0.020	0.5	Rain	I. R. Central Institute.

NOTE.—The originals give the force of wind on a scale of 0 to 10, and occasionally the weather by the Vienna symbols. No distinction is made between upper and lower clouds. It is not always certain that the weather remarks refer to the exact moment of observation.

BELGIAN SERIES.

Furnished by the coöperation of Professor E. Quetelet, Director of the Royal Observatory at Brussels.

Brussels	29.87	758.7			63.0	17.2	44	NNW			1		7k		W	0	0		Royal Observatory.

NOTE.—The originals give the wind pressure in kilograms per square foot, the weather in general notes. No distinction is made between upper and lower clouds. It is assumed that the barometer is not reduced to sea level; its altitude is 56.56 meters or 183.9 feet.

BRITISH SERIES.

Furnished by the cöoperation of Robert H. Scott, Esq., Director of the Meteorological Office, London.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Aberdeen			30.10	764.5				ESE	10	4.5			2			0	0		William Boswell.
Annanhill																			
Ardrossan			30.06	763.5	50	10.0		Calm			0		8						William McNeil.
Armagh Observatory			30.01	762.2	59.7	15.4		S	7	3.1			7						S. Call, for Dr. Robinson
Banbridge																			
Barnstaple																			
Battersea, St. John's Col.																			
Bidston, Liverpool Obs.			30.06	763.5	55.3	12.9		WNW			1		8						John Hartnup, Jr.
Birr Castle, (Parsonstown)			29.97	761.2	60.6	15.9		SE			1		10						J. Drever, for L'd Rosse.
Bradford			30.02	762.5	56.9	13.8		NE			1		10						J. Mc. Landsborough.
Bridgetown, (Barbadoes)			30.07	763.8	82.0	27.8		NE			2		5						T. H Hunt.
Bywell																			
Cambridge Observatory			30.04	763.0	66.0	18.9		S			1		3					Haze	H. Todd.
Cape Town, (Cape Colony)			29.82	757.4	76.0	24.4		W			4		0						Sgt. D. E. Hunt.
Cape Good Hope Obs.	29.84	757.9			71.7	23.7	43	NW	9	4.0			0						The Staff, for E. J. Stone.
Cardington			30.06	763.5	68.0	20.0		NW					1						John McLaren.
Carlisle			30.07	763.8	51.9	11.1		W					10			0	0	Threatening	T. Bell, for J. Cartmell.
Chatham, School M. E.			30.04	763.0	65.2	18.4		W			1		6						Q. M. Sergt. J. Conroy.
Colombo, (Ceylon)			29.93	760.2	80.6	27.0		SW			3		5						Sgt. W. F. Hopkins
Dartmoor			30.10	764.5	56.2	13.4		Calm			0		9						R. E. Power.
Donaghadee			30.00	762.0	60	15.6		S			3		8						J. Mac Gowan, Jr.
Dover			30.09	764.3	54	12.2		WSW			1		2						J. Costello.
Dublin																			
Durham Observatory																			G. D. Goldney.
Eccles, (near Manchester)			30.05	763.3	61.7	16.5		W	2.8	1.3			0						Thomas Mackereth.
Falmouth Observatory			30.06	763.5	55.0	12.8		ESE	12	5.4			8						The Staff.
Fort Napier, (Natal)			29.87	758.7	73.3	22.9		E			2		1						Pvt. G. Salmon.
Freetown, (Sierra Leone.)																			
Galway, Queen's College			29.89	759.2	61	16.1		S			1		10						B. G. Clare, for Prof. Curtis.
Gibraltar, (Mediterranean)			30.09	764.3	70.5	21.4		ENE			3		2						Sergt. E. G. Baker.
Glasgow Observatory			30.04	763.0	48.4	9.1		W			1		10					Drizzling	James Gray.
Great Yarmouth			30.07	763.8	55	12.8		E			1		3					Haze	G. T. Watson.
Greenwich Royal Obs.			30.07	763.8	69.3	20.7		SW			1		7						The Staff, for G. B. Airy.
Guernsey			30.04	763.0	60	15.6		ESE			1		0						Dr. S. E. Hoskins.
Halifax, Moorside Obs.			30.02	762.5	56.2	13.4		NW					10					Mist	F. J. Page, for L. J. Crossley.
Halifax, (Nova Scotia)			29.84	757.9	43.6	6.4		SE			2		7						Corp'l J. Y. Thompson.
Helston			30.03	762.7	62	16.7		E			4		5						Dr. W. B. Moyle.
Holyhead			30.06	763.5	56	13.3		SSW			2		4						John Tilston.
Hull Park																			
Kew Observatory			30.06	763.5	63.7	17.6		NNW	5	2.2			4						The Staff.
Kingstown			30.03	762.7	55	12.8		SSE			3		8						George Mitchell.
Lampeter																			
Leicester Museum			30.07	763.8	61.5	16.4		SW			1		4						William J. Harrison
Llandudno			30.05	763.3	55.0	12.8		NE					6						Dr. James Nicol.
Malta, (Mediterranean)			30.15	765.8	63.0	17.2		NE			1		2k						Lt. Sergt. E. Dowling
Markree Castle																			
Marlborough College																			
Moville																			
Nairn			30.04	763.0	55	12.8		SSE			1		2						William D. Penny.
Nassau, (Bahamas)			30.16	766.1	76.1	24.5		Calm			0		3						Surg.-Maj. J. Jameson.
North Shields			30.09	764.3	52	11.1		SE			3		5						John Wm. Irvine.
Nottingham			30.07	763.8	65.7	18.7		S			3		1k		SSW				E. J. Lowe.
Osborne, New Barn Cottage																			
Oscott, St Mary's College			30.05	763.0	60.9	16.1		SW			3		7					Haze	Rev. Stephen Whitty.
Oxford, Radcliffe Obs.			30.03	762.7	62	16.7		SW			1		6						J. Lucas, for R. Main.
Plymouth			30.05	763.3	61	16.1		SSE			3		2						John Merrifield.
Portishead																			
Prospect, (Bermuda)																			
Pwllheli, Cochy foel																			
Roche's Point			30.01	762.2	56	13.3		S			3		10						W. Kennedy.
Saint Ann's Head			30.06	763.5	55	12.8		SE			1		7						John C. Walker.
Saint Helier, (Jersey)			30.03	762.7	66.5	19.2		S			1		0						A. P. Amy.
Sandwick Manse, (Orkneys)			30.09	764.3	47.2	8.4		SE	8	3.6			0						Rev. C. Clouston.
Scarborough			30.09	764.3	51.5	10.8		NNE			2		1						F. Shaw.
Scutari, (Turkey)			29.99	761.7	58.4	14.7		NE			2		1						Sergt. W. H. Lyne.
Sheffield			30.02	762.5	63.5	17.5		SW			1		5			0	0		W. F. Cooper.
Sidmouth																			
Silloth Rectory			30.07	763.8	50.9	10.5		Calm			0		10			0	0		Rev Francis Redford.
Somerleyton, (Lowestoft)			30.06	763.5	62.4	16.9		NNE			1		5						Rev. C. J. Steward.
Stonyhurst Observatory			30.05	763.3	51.4	10.8		W			1		10					Threatening	The Staff.
Stornoway, Lewis C. (Hebr.)			30.00	762.0	56	13.3		NE			2		7						John Smith.
Strathfield Turgiss			30.06	763.5	64.9	18.3		SW			1		0						Rev Charles H. Griffith
Streatley Vicarage			30.06	763.5	71.0	21.7		WSW			1		0						Rev. John Slatter.
Sumburgh Head, (Shetland)			30.04	763.0	47	8.3		NNE			4		4						William Lawrence.
Taunton College																			
Thurso			30.09	764.3	50	10.0		E			2		7						John Trotter.
Truro, Royal Institution			29.98	761.5	62	16.7		SE			2		4						W. Newcombe.
Valencia Observatory			29.91	759.7	52.8	11.6		SE	28	12.5								Mist	The Staff.
Wick																			
Wisbeach																			
Worthing			30.09	764.3	59.8	15.4		SW			1		0						William J. Harris.
York																			

NOTE.—The originals generally omit the relative humidity, and except in a few cases, they give the wind force on the scale 0–12, the wind direction to 32 points, and the weather in the Beaufort notation. No distinction is made between the upper and lower clouds. The rain-fall is measured at 10 a. m. at Aberdeen. Occasionally the barometer has been reduced to sea-level and the observed wind pressures reduced to the scale of force, 0–10, by the editor. The elevation of the Cape of Good Hope Observatory is unknown.

DANISH SERIES.

Furnished by the cöoperation of Captain N. Hoffmeyer, Director of the Royal Danish Meteorological Institute at Copenhagen.

Copenhagen			29.98	761.4	40.1	4.5	90	SSE			2		10					Mist	
Fanöe			29.97	761.1	46.8	8.2	94	NW			4		10					Rain	
Godthaab, (Greenland)			29.59	751.6	32.2	0.1		NE			4		10					Mist	
Stykkisholm, (Iceland)			29.82	757.5	46.0	7.8	89	E			2		8						
Thorshavn, (Faröe)			30.09	764.3	47.5	8.6	70	SE			4		10						
Vestervig			29.96	760.9	47.1	8.4	94	ENE			4		10						

NOTE.—The originals give the force of the wind on a scale of 0 to 6, and the weather in the Vienna symbols. No distinction is made between the upper and lower clouds.

FRENCH SERIES.

Furnished by the coöperation of His Excellency U. J. Le Verrier, Director of the Paris Observatory, and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Ajaccio			30.06	763.5	65.8	18.8	78						1ks						Normal School.
Alengon			30.01	763.0	73.4	23.0	49	SW			1		2			0	0		Normal School.
Amiens			30.08	764.1	60.1	15.6	71	WSW			1		0			0	0		Normal School.
Beaumette, (near Angers)																			Beaumette Observatory.
Beauvais			30.07	763.8	63.9	17.7	40	WNW			1		0			0	0		Normal School.
Besançon			30.07	763.7	70.9	21.6	35	S			2		0			0	0		Normal School.
Bourges			30.06	763.4	69.8	21.0	49	NE			1		1		N	0	0		Normal School.
Brest			29.98	761.4	70.3	21.3	54	WSW			1		0			0	0		Naval Observatory.
Caen			30.06	763.4	67.6	19.8	47	NE			2		2c			0	0		Normal School.
Carcassonne																			
Chartres			30.04	762.9	72.7	22.6		W			1		0			0	0		Normal School.
Chaumont			30.01	762.2	70.0	21.1		NW			3		0			0	0		Normal School.
Le Mans																			Normal School.
Mirecourt			30.01	762.2	65.8	18.8	24	NNW			2		2		SSE	0	0		Normal School.
Orleans																			Normal School.
Paris Observatory			30.07	763.6	67.5	19.7		ENE					1cs			0	0		National Observatory.
Parthenay			30.00	761.9	68.0	20.0	43	SE			2		0			0	0		Normal School.
La Roche sur Yon			30.04	763.0	60.8	16.0	31	E			2		2		E	0	0		Normal School.
Rouen			30.05	763.3	69.6	20.9	44	NNW			1		0			0	0		Normal School.
Saint Lo			30.04	762.9	66.2	19.0	43	NW			2		10		W	0	0		Normal School.
Villefranche			30.08	764.0	76.8	24.9	36	ESE			2		0			0	0		Normal School

FRENCH SUB-SERIES.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Gorée, (Senegambia)																			Frère Pascall.
Mont-Louis	24.94	633.6			60.1	15.6	55	E	14.9	6.66			4		SW	0	0		—. Falguère.
Montsouris Observatory			30.06	763.5	70.0	21.1	36	N	3.0	1.67			1k		WSW	0	0		Marié Davy.
Perpignan	29.93	760.3			66.9	19.4	66	NE	5.0	2.50			0			0	0		Dr. Fines.
Saint Maur, (near Paris)																			E. Renou.
Saint Pierre, (Martinique)																			
Tours			30.03	762.7	74.8	23.8	31	NNE			1		1		NW	0	0		C. Marquet.
Versailles, (near Paris)			30.07	763.8	70.9	21.6	41	NW			1		1			0	0		Dr. A. Bérigny.
Zi-Ka-Wei, (near Shanghai)			30.24	768.1	53.2	11.8	78	ENE	1.3	0.6			0			0	0	Fog	H. Le Lec, S. J.

NOTE.—The originals give the wind force on a scale of 0 to 7, and the weather in general terms; the wind velocity is given by Montsouris in kilometers per hour, but by Beaumette, Mont-Louis and Perpignan in meters per second. No distinction is generally made between upper and lower clouds. The rain-fall is generally measured at 7 a. m. or 9 a. m., local time. The altitude of Mont-Louis is 1,586.40 meters, or 5,204.8 feet, and of Perpignan 40 meters, or 131 feet.

GERMAN SERIES.

Furnished by the coöperation of Professor Carl Bruhns, Director of the Royal Observatory, Leipsic.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bamberg			29.99	761.8	62.6	17.0	44	NW			2		7			0	0		Prof. Hoh.
Berlin			30.04	762.9	58.5	14.7	46	N			3		9			0.146	4.7		Prof. Arndt.
Breslau			29.99	761.8	53.2	11.8	70	WNW			6		8			0	0	Rain	Dr. P. Neugebauer.
Carlsruhe			30.02	762.4	67.8	19.9	43	SW			2		5			0	0		A. Senz.
Cassel			29.96	761.0	63.5	17.5	45	NW			3		8			0	0		Dr. H. Möhl.
Cologne			30.07	763.7	59.9	15.5	84	SW			5		3			0	0		Dr. Garthe.
Emden			30.05	763.2	55.6	13.1	77	N			3		3			0	0		Prof. Prestel.
Frankfort on the Main			30.13	765.2	67.1	19.5	39	NNE			1		4			0	0		Physical Society.
Friedrichshafen			30.06	763.5	60.8	16.0	69	W					3			0	0		M. Wilhelm.
Hamburg			30.02	762.5	56.3	13.5	72	NW			4		10			0.051	1.3		W. Reinert.
Kiel			29.98	761.5	58.5	14.7	63	W			3		9			0	0		Prof. G. Karsten.
Königsberg			29.89	759.2	44.6	7.0	79	NE			2		9			0.055	1.4		Prof. E. Luther.
Köslin			30.10	764.5	48.6	9.2		N			1		10			0.331	8.4		Dr. T gert.
Leipsic			30.04	762.9	59.5	15.3	40	NW			2		7			0.122	3.1		Prof. Bruhns.
Münster			30.01	762.3	62.8	17.1	58	NW			1		4			0	0		Prof. E. Heis.
Posen			29.94	760.4	49.3	9.6	81	NW			6-7		10			0.209	5.3		Dr. Magener.
Strasburg, (in Alsace)			30.02	762.6	68.9	20.5	38	Calm					0			0	0		Hartwig and Tülk.
Stuttgart			29.99	761.8	67.6	19.8	42	N					2			0	0		Mr. Würth.
Thorn			29.86	758.4	49.1	9.5	90	E			2		10			0.173	4.4		Dr. Hasenbalg.
Treves, (Trier)			30.00	761.9	59.9	19.5	35	NW			3		0			0	0		Prof. Flesch.
Wustrow			29.99	761.7	47.3	8.5	86	WNW			2		7			0.043	1.1		E. F. Schütz.

NOTE.—The originals give the force of the wind on a scale of 0 to 10. No distinction is made between upper and lower clouds. It is not quite certain that the remarks in the weather column refer to the moment of observation.

ITALIAN SERIES.

Furnished by the coöperation of His Excellency the Minister of Agriculture, Industry, and Commerce and the respective observers.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper From—	Clouds. Direction. Lower From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Moncalieri			30.04	762.9	69.8	21.0	49	S	4.3	1.9			1			0	0		
Mondovi			30.02	762.5	64.4	18.0	46	ESE			4		0			0	0		
Genoa			30.12	765.1	63.1	17.3	63	SW	1.8	0.8			0			0	0		
Pavia			30.03	762.7	70.5	21.4	33	NW			2		0			0	0		
Verona			29.98	761.4	74.3	23.5	69	E			1		0			0	0		
Padua			30.02	762.5	67.3	19.6	37	SE	8.1	3.6			0			0	0		
Parma																			
Bologna			30.02	762.4	71.1	21.7	14	WNW			4		0			0	0		
Livorno			30.11	764.9	62.2	16.8	64	SW	4.3	1.9			3			0	0		
Urbino			30.07	763.6	64.0	17.8	41	SW			2		5			0	0		
Ancona			30.05	763.3	68.0	20.0	44	SE			2		0			0	0		
Siena			30.04	763.1	70.5	21.4	53	W	0	0			4	W		0	0		
Rome			30.14	765.5	67.6	19.8	54	SSW	4.9	2.2			2			0	0		
Naples, O.U.			30.14	765.6	69.6	20.9	50	SW			4		1	NE		0	0		
Lecce			30.11	764.7	61.3	16.3	51	NW	9.8	4.4			4			0	0		
Cosenza			30.12	765.0	66.6	19.2	45	NW			4		6			0	0		
Catania, (Sicily)			30.16	766.1	63.0	17.2	50	SE			2		0			0	0		
Riposto																			
Palermo			30.09	764.3	62.1	16.7	47	NE			2		0			0	0		
Sub-Series.																			
Naples, S. R.	29.61	752.2			68.0	20.0	56	W			4					0	0		Prof. F. Brioschi.

NOTE.—The originals give the force of the wind on a scale of 0 to 4 and in some cases the velocity in kilometers per hour; the cloudiness is occasionally given on a scale of 0 to 4, and generally without distinguishing between upper and lower clouds; the weather is given in various general terms. The altitude of Naples, S. R., is 149.0 meters, or 488.8 feet.

NETHERLANDS' SERIES.

Furnished by the coöperation of Professor Buys Ballot, Director of the Royal Meteorological Institute of the Netherlands at Utrecht.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Flushing			30.11	764.7	59.0	15.0		NNW			2								
Groningen			29.96	760.9	57.4	14.1		NNW			3								
Helder			30.04	763.1	61.4	10.8		WNW			2								
Utrecht			30.02	762.5	65.1	18.4	60	W			3		5						

Note.—The originals give the pressure of the wind in kilograms per square meter, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds—it is assumed that the barometer readings have been reduced to sea level.

NORWEGIAN SERIES.

Furnished by the coöperation of Professor H. Mohn, Director of the Royal Norwegian Meteorological Institute at Christiania.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bergen			29.96	760.9	54.7	12.6	61	WNW	4.0	1.8			4			0	0		
Christiania			30.07	763.7	44.1	6.7	67	NNE	1.8	0.8			9			0.457	11.6		
Tromsö			29.98	761.6	35.1	1.7	94	Calm			0		10			0.169	4.3	Snow	

Note.—The originals give the velocity of the wind in meters per second and its force on a scale of 0 to 6; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather in general terms. The cloudiness and the weather at Bergen refer to 2h. 0m. p. m., local time.

PORTUGUESE SERIES.

Furnished by the coöperation of J. C. de Brito Capello, Director of the Meteorological Observatory of the Infante Don Luiz at Lisbon.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Lisbon	29.82	757.5			66.7	19.3	64	NW	9.8	4.4			7			Blank	Blank		

Note.—The originals give the velocity of the wind in kilometers per hour, the weather in the Vienna symbols, and the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds; it is assumed that the barometer is not reduced to sea-level; its altitude is 102.3 meters, or 335.5 feet.

RUSSIAN SERIES.

Furnished by the coöperation of Professor H. Wild, Director of the Imperial Central Physical Observatory of Russia at St. Petersburg.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Warsaw			29.81	757.1	47.7	8.7	92	ESE	4	2			10						Astronomical Obs.
Wilna			29.92	760.0	47.1	8.4	70	E	4	2			10						Astronomical Obs.
Dorpat			29.91	759.6	42.6	5.9	44	N	9	4			8						Physical Cabinet.
St. Petersburg			29.71	754.5	37.9	3.3	80	W	2	1			10						Central Physical Obs.
Kuopio																			
Kieff			29.89	759.3	62.6	17.0	44	W	4	2			8						Physical Cabinet.
Nikolaiev			29.97	761.3	61.7	16.5	34	NW	4	2			2						
Kertch			29.95	760.8	58.8	14.9	53	NW	10	4.5			7						Lagorio.
Moscow			30.00	762.0	54.5	12.5	47	S	4	2			2						Meteorological Obs.
Lugan			29.70	754.4	47.1	8.4	84	NW	4	2			10					Rain	Meteorological Obs.
Archangel			29.75	760.8	35.6	2.0	93	E	8	3.5			10						Ogorodnikof.
Tiflis			29.92	760.0	58.3	14.6	56	N	8	3.5			9					Rain	Physical Obs.
Astrakhan			29.80	757.0	67.8	19.9	45	WNW	8	3.5			8					Rain	Sebastianof.
Kasan			30.07	763.6	47.5	8.6	52	E	10	4.5			10						Physical Cabinet.
Orenburg			30.02	762.6	66.4	19.1	39	SE	10	4.5			4						Tschernischef.
Ekaterinburg			30.30	769.7	50.4	10.2	37	Calm	0	0			1						Meteorological Obs.
Kasaly																			Bobrof.
Tashkend																			Michelson.
Barnaul			30.00	761.9	51.3	10.7	49	NW	10	4.5			3						Meteorological Obs.
Yeniseisk			29.58	751.3	37.0	2.8	83	W	17	7.5			10					Rain	Marks.
Irkutsk																			Usolzef.
Oorga			30.08	764.0	32.7	0.4	74	Calm	0	0			0						Mossin.
Peking, (China)			29.98	761.4	59.7	15.4	33	Calm	0	0			8						Physical Observatory
Nertchinsk			29.96	761.0	32.4	0.2	72	Calm	0	0			0						Meteorological Obs
Vladivostock																			
Nikolaievsk, on the Amoor																			Kurdakof.

Note.—The originals give the velocity of the wind in meters per second; the cloudiness on a scale of 0 to 10, without distinguishing between upper and lower clouds, and the weather according to the Vienna system of symbols.

SPANISH SERIES.

Furnished by the coöperation of Antonio Aguilar, Director of the Royal Observatory at Madrid, and of Don Cecilio Pujazon, Captain R. N., Director of the Naval Observatory at San Fernando.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Madrid			30.04	763.0	66.0	18.9	58	W	17.9	8.0			8			0.004	0.1	Rain	Royal Observatory.
San Fernando																			The Naval Observatory.

Note.—The originals give the velocity of the wind in kilometers per hour; the cloudiness from 0 to 10, with a distinction between upper and lower clouds, the rainfall for the previous 8 hours, and the weather in general terms.

SWEDISH SERIES.

Furnished by the coöperation of Prof. R. Rubenson, Director of the Royal Swedish Meteorological Institute, at Stockholm, and Dr. H. H. Hildebrandsson, Chief of the Meteorological Division of the Upsala Observatory.

Stations.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Winds. Direction. From—	Winds. Velocity. Miles per hour.	Winds. Velocity. Meters per second.	Winds. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Umea			29.97	761.1	43.5	6.4	48	NNW			1		4			0	0		
Hernosand			29.96	761.0	42.4	5.8	33	S			3		6			0	0		
Stockholm			29.97	761.2	46.0	7.8	31	WSW			1		4			0	0		
Wisby			30.00	761.9	40.8	4.6	65	N			3		2			0	0		
Sub-Series.																			
Upsala			30.01	762.2	45.7	7.6	38	N			4		8		NNW				Dr. Hildebrandsson.

Note.—The originals give the wind-force on a scale of 0 to 10, except Upsala on a scale of 0 to 6, and the cloudiness without distinguishing between upper and lower clouds. In the official series the cloudiness is given on a scale of 0 to 5. The rain-fall is measured at 8 a. m., local time, at Umea, Hernosand, Stockholm, and Wisby.

SWISS SERIES.

Furnished by the coöperation of Professor R. Wolf, Director of the Observatory at Zurich, and of Professor E. Plantamour, Director of the Observatory at Geneva.

Geneva	28.64	727.5			63.9	17.7	45	NNE			2		0			0	0		The Observatory.
Zurich	28.41	721.5			70.7	21.5	35	W			2		1			0	0		The Observatory.

Note.—For Geneva the corresponding departures from the normal values are: Barometer, +3.0mm.; Thermometer, +4°0. C.; Relative Humidity, —12 per cent.

Note.—The originals give the force of the wind on a scale of 0 to 4; the cloudiness from 0 to 10, without distinguishing between the upper and lower clouds, and the weather in general terms. The altitude of Geneva is 408 meters, or 1,339 feet, and that of Zurich is 470 meters, or 1,542 feet.

TURKISH SERIES.

Furnished by the coöperation of A. Coumbary, Effendi, Director of the Central Observatory at Constantinople.

Beirut, (Syria)			29.96	761.0	68.5	20.3	65	SW			3		10					Rain	
Constantinople			30.02	762.5	49.3	9.6	46	NE	7.8	3.5			2		NE	0	0		
Fao, (Persian Gulf)			29.93	760.2	87.8	31.0		NW			3		0					Thunder-storm & hail	
Salonica					63.1	17.3		SW			1		10						
Valona			30.00	762.1	62.2	16.8		NW			2		2						
Varna			30.00	762.0	59.0	15.0		E			2		0						

Note.—The originals give the wind-force on scales of 0 to 7 and 0 to 12; the weather and cloudiness are given in general terms, and it is assumed that the barometer is reduced to sea level. No distinction is made between upper and lower clouds.

GREEK SERIES.

Furnished by the coöperation of Professor Dr. J. F. Julius Schmidt, Director of the Royal Observatory at Athens.

Athens																			

Note.—Reports commence October 1, 1875.

CANADIAN SERIES.

Furnished by the coöperation of Prof. G. T. Kingston, Director of the Magnetic Observatory at Toronto and Superintendent of the Meteorological Office of the Dominion of Canada.

Brockville, Ontario			29.59	751.6	44	6.7		SW	15	6.7		0	2s		SW	0.30	7.6		
Chatham, N. B.			29.73	755.1	40	4.4	31	Calm	0	0		10c	0			0	0		
Charlottetown, P. E. Island			29.81	75..2	37	2.8	59	S	8	3.6		0	2cs			0	0		
Fort Garry, Manitoba			29.92	760.0	20	— 6.7	92	W	7	3.1		2ck	5ks	N	N	0.03	0.8		
Halifax, N. S.			29.74	755.4	42	5.6	83	E	6	2.7		5cs	0			0	0		
Kingston, Ontario			29.64	752.8	41	5.0	84	W	15	6.7		2k	0			0.30	7.6		
Montreal, Quebec			29.35	745.5	40	4.4	82	W	38	17.0		5k	5ks	W	W	0.42	10.7		
Ottawa, Ontario			29.50	749.3	42	5.6	69	W	22	9.8		10k	0	W		0.25	6.3		
Parry Sound, Ontario			29.63	752.6	33	0.6	89	W	25	11.2		5k	5ks	W	W	1.12	28.4		
Port Dover, Ontario			29.73	755.1	39	3.9	91	W	12	5.4		10k	0	W		0.57	14.5		
Port Stanley, Ontario			29.78	756.4	41	5.0	69	W	35	15.6			10n		W	0.55	14.0		
Quebec, Quebec			29.45	748.0	38	3.3	100	NE	4	1.8			10n		NE	0.15	3.8	Light rain	
Saugeen, Ontario			29.74	755.4	30	— 1.1	89	NW	21	9.4			10n		SW	1.01	25.7		
Stayner, Ontario			29.68	753.9	36	2.2	85	NW	10	4.5			10n		NW	0.73	18.5	Light rain	
Sydney, C. B.			29.85	758.2	43	6.1	48	W	1	0.4		5c	0	NW		0	0		
Toronto, Ontario			29.69	754.1	38	3.3	85	W	17	7.6			10n		SW	0.82	20.8		

Note.—The originals give the cloudiness on a scale of 0 to 4.

UNITED STATES SERIES.

Furnished by the coöperation of Bvt. Brig. Gen. Albert J. Myer, Chief Signal Officer, U. S. A.

Station.	Barometer. Corrected or instrumental errors. Inches.	Barometer. Corrected or instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0—10.	Clouds. Amount. Up'er 0—10.	Clouds. Amount. Low'r 0—10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Albany, N. Y.			29.67	753.6	46	7.8	69	W	18	8.0		10k	0	W		0.13	3.3		
Alpena, Mich.			29.80	756.9	28	— 2.2	67	W	28	12.5		0	5ks		W	0.17	4.3		
Atlantic City, N. J.			29.85	758.2	54	12.2	61	NW	12	5.4		0	0			0	0		
Augusta, Ga.			29.99	761.2	68	20.0	65	SW	3	1.3		2c	0	W		0	0		
Baltimore, Md.			29.88	758.9	55	12.8	50	W	4	1.8		0	0			0	0		
Barnegat, N. J.			29.81	757.2	56	13.3	73	W	16	7.2		0	0			0	0		
Benton, Montana			30.04	763.0	28	— 2.2	100	N	8	3.6			10n			0.10	2.5	Light snow.	
Bismarck, Dakota			29.84	757.9	26	— 3.3	65	NW	2	0.9			10s			0.01	0.3		
Boston, Mass.			29.65	753.1	51	10.6	59	W	12	5.4		0	0			0.01	0.3		
Breckenridge, Minn.			29.92	760.0	29	— 1.7	79	W	4	1.8			10s			0.10	2.5		
Buffalo, N. Y.			29.70	754.4	35	1.7	90	SW	12	5.4			10n		SW	0.34	8.9	Light rain	
Burlington, Vt.			29.50	749.3	49	9.4	78	S	12	5.4		2k	5s	W		0.01	0.3		
Cairo, Ill.			30.02	762.5	54	12.2	67	E	4	1.8		2c	0	W		0	0		
Cape Hatteras, N. C.			29.92	760.0	64	17.8	78	SW	18	8.0		Haze	Haze			0	0		
Cape Henry, Va.			29.89	759.2	68	20.0	60	SW	13	5.8		Haze	0			0	0		
Cape May, N. J.			29.87	758.7	52	11.1	72	NW	12	5.4		0	0			0	0		
Charleston, S. C.			30.00	762.0	68	20.0	69	W	7	3.1		2c	Sm'e	W		0	0		
Cheyenne, W. T.			29.70	754.4	46	7.8	30	W	8	3.6		8c	0			0	0		
Chicago, Ill.			30.02	762.5	37	2.8	53	NW	3	1.3		2ck	0	W		0.57	14.5		
Cincinnati, Ohio			30.04	763.0	51	10.6	65	SW	4	1.8		0	0			0			
Cleveland, Ohio			29.87	758.7	41.8	5.4	53	W	26	11.6			10ks		W	0.24	6.1	Clearing	
Colorado Springs, Col.			29.68	753.9	53	11.7	36	NW	4	1.8			10s			0	0		
Corsicana, Texas			29.78	756.4	70	21.1	95	E	6	2.7			10s		E	0.02	0.5		
Davenport, Iowa			30.09	764.3	37	2.8	54	N	4	1.8			10ks		W	0.07	1.3		
Denver, Col.			29.75	755.6	42	5.6	66	S	2	0.9		2cs	0	SW		0	0		
Detroit, Mich.			29.88	758.9	37	2.8	66	NW	22	9.8		2k	0	W		0.56	14.2		
Dodge City, Kansas			29.42	747.3	50	10.0	79	SE	11	4.9			10s			0	0		
Dubuque, Iowa			30.05	763.3	36	2.2	61	NW	4	1.8		2k	0	NW		0.20	5.1		
Duluth, Minn.			29.89	759.2	29	— 1.7	67	SW	8	3.6		9k	0	NW		0.02	0.5		
Eastport, Me.			29.74	755.4	38	3.3	90	S	10	4.5			10s			0	0		
Erie, Penn.			29.74	755.4	45	7.2	76	S	30	13.4		8ck	Haze	SW		0.24	6.1		
Escanaba, Mich.			29.92	760.0	28	— 2.2	65	W	8	3.6		0	0			0.24	6.1		
Fort Gibson, I. T.			29.74	755.4	60	15.6	55	E	8	3.6		6cs	2ks	W		0	0		
Fort St. Michael, Alaska																			
Fort Sully, D. T.			29.88	758.9	34	1.1	75	SE	2	0.9		2k	5s	SW	SE	0.05	1.3		
Galveston, Texas			29.88	758.9	72	22.2	90	S	8	3.6			10ks		S	0	0		
Grand Haven, Mich.			29.99	761.7	35	1.7	61	N	5	2.2		10k	0	NW		0.94	23.9		
Indianapolis, Ind.			30.00	762.0	47	8.3	59	NW	9	4.0		2cs	0			0.19	4.8		
Indianola, Texas			29.85	758.2	73	22.8	90	S	14	6.3		2ck	Haze	SW		0	0		
Jacksonville, Fla.			30.10	764.5	68	20.0	68	S	4	1.8		0	0			0	0		
Keokuk, Iowa			30.03	762.7	41	5.0	57	E	5	2.2		2c	0	SW		0	0		
Key West, Fla.			30.13	765.2	72.3	22.4	67	E	4	1.8		0	Haze			0	0		
Kittyhawk, N. C.			29.9[illegible]	759.4	62	16.7	71	W	16	7.2		0	Haze			0	0		
Knoxville, Tenn.			30.03	762.7	57	13.9	57	NE	8	3.6		8cs	0	W		0	0		
La Crosse, Wis.			30.04	763.0	33	0.6	61	W	5	2.7		0	0			0	0		
Leavenworth, Kan.			29.96	761.0	43	6.1	60	E	8	3.6		2c	0	W		0	0		
Lexington, Ky.			30.03	762.7	53	11.7	61	NW	5	2.2		0	0			0	0		
Long Branch, N. J.			29.81	757.2	52	11.1	59	NW	30	13.4		0	0			0.03	0.8		
Louisville, Ky.			30.05	763.3	49	9.4	71	SE	6	2.7		5c	0	SW		0	0		
Lynchburg, Va.			29.92	760.0	63	17.2	35	SW	4	1.8		0	0			0	0		
Malone, N. Y.																			
Marquette, Mich.			29.80	758.4	26	— 3.3	63	SW	4	1.8		0	5s		NW	0	0		
Memphis, Tenn.			29.94	760.5	61	16.1	55	NE	12	5.4			10s		W	0	0		
Milwaukee, Wisconsin			30.03	762.7	32	0.0	50	NW	12	5.4		0	0			0.60	15.2		
Mobile, Ala.			30.05	763.3	70	21.1	79	S	1	0.4			10s		SW	0	0		
Montgomery, Ala.			30.06	763.5	62.5	16.9	80	S	1	0.4		10ck	Haze	W		0	0		
Morgantown, W. Virginia			29.92	760.0	53	11.7	53	S	10	4.5		0	0			0.03	0.8		
Mt. Washington, N. H.			29.53	750.0	21	— 6.1	100	NW	60	26.8			Fog			0.01	0.3		
Nashville, Tenn.			30.06	763.5	57	13.9	57	NE	4	1.8		10k	0	W		0.08	2.0		
New Haven, Conn.			29.74	755.4	56	13.3	57	W	9	4.0		0	0			0.06	1.5		
New London, Conn.			29.73	755.1	51	10.6	59	SW	14	6.3		0	Haze			0.01	0.3		
New Orleans, La.			30.00	762.0	69	20.6	90	SE	4	1.8		10k	0	S		0	0		
Newport, R. I.																			
New York, N. Y.			29.[illegible]2	757.4	44	6.7	75	W	10	4.5		0	0			0.10	2.5		
Norfolk, Va.			29.89	759.2	64	17.8	67	SW	8	3.6		0	Haze			0	0		
North Platte, Neb.			29.43	747.5	36	2.2	80	NE	15	6.7			10s		NE	0	0		
Omaha, Neb.			29.90	759.4	38	3.3	71	S	12	5.4			10s		SW	0	0		
Oswego, N. Y.			29.68	753.9	43.5	6.4	62	WSW	20	8.9		Haze	1ks			0.05	1.3		
Peck's Beach			29.83	758.9	49	9.4	93	NW	22	9.8		0	Haze			0	0		
Pembina, D. T.			29.89	759.2	23	— 5.0	79	Calm	0	0		2c	2s			0	0		
Philadelphia, Penn.			29.84	757.9	53	11.7	55	W	8	3.6		0	0			0.01	0.3		
Pike's Peak, C. T.			29.76	755.9	17	— 8.3	100	W	12	5.4			10ks			0	0		
Pittsburgh, Penn.			29.86	758.4	49	9.4	57	W	12	5.4		0	0			0.07	1.8		
Port Huron, Mich.			29.82	757.4	46	7.8	62	W	22	9.8		5k	0	W		0.67	17.0		
Portland, Maine			29.63	752.6	45	7.2	76	S	18	8.0			10ks		SW	0	0		
Portland, Or.			30.05	763.3	46	7.8	84	Calm	0	0		8k	Haze			0	0		
Punta Rassa, Fla.			30.14	765.5	69	20.6	75	N	4	1.8		Haze	1s			0	0		
Rochester, N. Y.			29.65	753.1	42	5.6	74	W	28	12.5		5k	5s	W		0.11	2.8		
Salt Lake City, Utah			29.74	755.4	55	12.8	33	SE	3	1.3		0	0			0	0		
Sandy Hook, N. J.			29.79	756.7	47	8.3	69	W	15	6.7		0	Haze			0.08	2.0		
San Diego, Cal.			30.11	764.8	58	14.4	76	E	4	1.8			10s			0	0		
San Francisco, Cal.			29.99	761.7	52	11.1	83	SW	6	2.7			10n			0.04	1.0		
Santa Fe, N. M.			29.52	749.8	44	6.7	68	W	12	5.4			10s		SW	0.04	1.0		
Savannah, Georgia			30.04	763.0	68	20.0	60	SW	6	2.7		2c	Sm'e			0	0		
Shreveport, La.			29.78	756.4	71	21.7	90	S	6	2.7			10s		S	0.01	0.3		
Springfield, Mass.			29.70	754.1	52.5	11.4	66	SW	4	1.8		2k	Haze			0	0		
St. Louis, Mo.			30.08	764.0	45	7.2	69	NE	12	5.4		0	0			0	0		
St. Marks, Fla.			30.00	764.3	61	16.1	94	Calm	0	0		0	0			0	0		
St. Paul, Minn.			29.93	760.2	31	— 0.6	68	SW	12	5.4		0	0			0.01	0.3		
St. Paul's Island, Alaska			29.14	740.1	34	1.1	80	E	38	17.0		1ck	10s			0.01	0.3		
Squan Beach, N. J.			29.80	756.9	53	11.7	53	W	25	11.2		0	Haze			0.13	3.3		
Toledo, Ohio			29.94	760.5	43	6.1	58	W	15	6.7		0	5s		W	0.25	6.3		
Tybee Island, Ga.			30.06	763.5	69	20.6	64	W	2	0.9		Haze	2s			0	0		
Vicksburg, Miss.			30.00	762.0	69	20.6	79	S	2	0.9			10s			0	0		
Virginia City, Mon.			29.5[illegible]	749.3	45	7.2	31	SW	8	3.6		Haze	0			0	0		
Washington, D. C.			29.91	759.7	56.5	13.6	40	NW	10	4.5		Haze	Haze			0	0		
Wilmington, N. C.			29.97	761.2	70	21.1	56	W	13	5.8		8c	0	NW		0	0		
Wood's Hole, Mass.			29.71	754.6	53	11.7	66	SW	10	4.5		0	8s			0	0		
Wytheville, Va.			29.74	755.4	54	12.2	37	NW	5	2.2		0	0			0	0		
Yankton, D. T.			29.97	761.2	39	3.9	54	SE	9	4.0			10s		NW	0	0		

UNITED STATES SUB-SERIES.

Station.	Barometer. Corrected for instrumental errors. Inches.	Barometer. Corrected for instrumental errors. Millimeters.	Barometer. Reduced to sea-level. Inches.	Barometer. Reduced to sea-level. Millimeters.	Temperature of the Air. Fahrenheit.	Temperature of the Air. Centigrade.	Relative Humidity. Per cent.	Wind. Direction. From—	Wind. Velocity. Miles per hour.	Wind. Velocity. Meters per second.	Wind. Force. 0–10.	Clouds. Amount. Up'er 0–10.	Clouds. Amount. Low'r 0–10.	Clouds. Direction. Upper. From—	Clouds. Direction. Lower. From—	Rain-fall in 24 hours. Inches.	Rain-fall in 24 hours. Millimeters.	Weather.	Observer.
Bridgetown, B'b'does, W. I.			30.09	764.3	80	26.7		NE	4	1.8		2c	5s	N		0	0		E. Racker.
Pointe-à Pitre, G'd'loupe, do			30.02	762.5	77	25.0		E				2k	2s	E		0	0		L. V. Bigard.
Havana, Cuba, W. I.			29.87	758.7	73	22.8	72	SE	3.6	1.6		0	0			0	0		Charles Hasselbrink.
Kingston, Jamaica, W. I.			30.25	768.3	78	25.6		Calm	0	0		0	0			0	0		James Gall.
St. Thomas, St. T., W. I.	30.29	769.4			78	25.6		E	4	1.8		2ck	5k	E		0	0		W. S. Cameron.
Santiago de Cuba, W. I.			29.90	759.4	79	26.1	70	NE	4.8	2.2		2ck	0	NNE		0	0		Robert Mason.
St. Georges, Bermudas			30.04	763.0	65.5	18.6	68	N	6	2.7			10ks			0.015	0.38		C. F. Allen.
Honolulu, Oahu, S. I.			30.09	764.3	63	17.2	68	NE			1	0	0			0	0		E. P. Church.
Makawao, Maui, S. I.			29.99	761.7	61	16.1	88	NE	15.6	7.0		0	3n		NE	0	0		F. L. Clarke.
Cumberland, B. A.																			
Ft. Chippewyan, B. A.																			
Ft. Macpherson, B. A.																			
Ft. Simpson, B. A.																			
York Factory, B. A.			29.91	759.7	13.5	−10.3	100	NW	4	1.8			10s			0	0		J. Fortescue.
Clifton, Jamaica, W. I.			30.10	764.5	64	17.8	93	SE	4.0	1.8		5c	0	SW		0	0		C. Partridge.
St. John's, Newfoundland			29.79	756.7	48	8.9	65	Calm	0	0		Haze	5s			0	0		John Delaney.
St. John's, Porto Rico, W. I.			30.12	765.1	81.1	27.3	69	SE			1	0	4ks			0	0		Leon M. Acuña.
Elyria, Ohio			29.90	759.4	40	4.4	56	NW	30	13.4			10n			0.22	5.6		H. M. Redington.
Indianola, Iowa	29.16	740.7			42	5.6		SE				5c	2s	SW		0	0		G. C. Carpenter.
U. S. Marine Series.	True course towards.	Hourly rate in knots.														State of ocean.	Direction of swell from—		
Schooner Addie Fuller N. 30° 35′, W. 66° 30′	ESE	1	29.99	761.7	68.5	20.3	99	WNW			1.5		10k			Long swell	W	Overcast	James Jorgensen, Mate.

NOTE.—The altitude of the barometer at Makawao is 2 205 feet, or 672.1 meters; those of St. Thomas, W. I., and Indianola are unknown. The temperatures at York Factory, when below —40° Fahrenheit, are as given by a spirit thermometer. The altitude of the barometer at Clifton, Jamaica W. I., is about 2895 feet, or 882 meters above sea-level.

The rain-fall at St. John's Porto Rico, is measured at 5:25 p. m. on the same day.

NOTE.—The originals generally give the cloudiness on a scale of 0 to 4.

Collated at the Office of the Chief Signal Officer of the Army, Washington, D. C.

The records which appear in this bulletin are copied from the regular exchanges of this office, made in each instance in compliance with an especial request, and are published for the uses of the co-operating observers.

Albert J. Myer

Brig. Gen. (Bvt. Assgd.) Chief Signal Officer, U. S. A.